PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re the Application of:		**Group Art Unit:**	Unknown
GONG		**Examiner:**	Unknown
Serial No.:	08/883,636		
Filing Date:	06/26/1997		
Atty. Docket No:	P2145		
Confirmation No.:	5383		
Title:	LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS		

PETITION TO THE DIRECTOR UNDER 37 C.F.R. § 1.181

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-150

Dear Sir or Madam:

Applicant submits this Petition to the Director of the USPTO under 37 C.F.R. §1.181 seeking reconstruction of the above-identified application, withdrawal of a holding of abandonment improperly mailed by the Office on June 8, 2005, and subsequent substantive examination of the Appeal Brief that Applicant timely filed with the USPTO ("Office") on March 25, 2002, based on the following remarks.

Applicant will pay required petition fee specified in 37 C.F.R. §1.17(f) for a question not specifically provided for under 37 C.F.R. §1.182 in the amount of $400.00 by an EFT account at the time of filing of this petition. Although Applicant does not believe that any additional fees are due with respect to the consideration of this petition, please debit any such additional fees from Deposit Account No. 50-1419.

A) Request for Reconstruction:

Initially, Applicant respectfully requests reconstruction of the above-identified application under 37 C.F.R. §1.251 beginning with the Appeal Brief timely filed by Applicant on March 25, 2002 (an entry for the Appeal Brief appears at "Paper No. 29" in the List of Contents of the file wrapper) because the Office appears to be missing this Appeal Brief in addition to many papers that should have been recorded by the Office after "Paper No. 29" but before "Paper No. 30" (the Request for Access of the Office's record of the file wrapper filed on December 16, 2010). Applicant notes that it

appears the Office has never notified Applicant of the Office's inability to locate this portion of the file wrapper nor set a time period within which Applicant needed to comply with provisions of such a notice.

For reference, Applicant will now provide a timeline of all papers mailed or filed in the above-identified application after the Notice of Appeal timely filed by Applicant on January 24, 2002, and for which Applicant respectfully requests the Office uses in the reconstruction of the above-identified application:

1) March 25, 2002 - Appeal Brief (see Exhibits A and B, paper no. 1)

2) November 21, 2003 - Change of Customer Number and Correspondence Address and Revocation of Power of Attorney and Grant of New Power of Attorney (see Exhibits A and B, paper no. 2).

3) December 12, 2003 - Duplicate Change of Customer Number and Correspondence Address and Revocation of Power of Attorney and Grant of New Power of Attorney (see Exhibits A and B, paper no.3).

4) October 6, 2004 - Status Inquiry (see Exhibits A and B, paper no. 4).

5) November 22, 2004 - Request for File Search (see Exhibits A and B, paper no. 5).

6) June 8, 2005 - Notice of Abandonment for an alleged failure to reply to an Office letter mailed on September 24, 2001 (see Exhibits A and B, paper no. 6).

7) November 3, 2006 - Request to Withdraw Holding of Abandonment and Letter Submitting Duplicate Copy of File Wrapper (see Exhibits A and B, paper no. 7).

8) November 3, 2006 – Information Disclosure Statement (see Exhibits A and B, paper no. 8).

9) June 16, 2009 - Revocation of Power of Attorney With New Power of Attorney and Change of Correspondence Address (see Exhibits A and B, paper no. 9).

10) July 13, 2009 - Notice of Acceptance of Power of Attorney (see Exhibits A and B, paper no. 10)

11) July 13, 2009 - Notice Regarding Change of Power of Attorney (see Exhibits A and B, paper no. 11)

12) December 16, 2010 - Request for Access (see Exhibits A and B, paper no. 12)

As provided and shown in Exhibit A, all papers filed by Applicant include an Office stamp or receipt acknowledging receipt by the Office of such papers.

In compliance with 37 C.F.R. §1.251(a)(1), Applicant has attached a copy of Applicant's record of all correspondence between the Office and Applicant for the above-identified application (Exhibit A), beginning with the Appeal Brief timely filed by Applicant on March 25, 2002, along with a list of the correspondence (Exhibit B). Applicant is not attaching a copy of Applicant's record of

correspondence between the Office and Applicant for papers mailed or filed before the Appeal Brief timely filed by Applicant on March 25, 2002 because Applicant's record of such papers appears to be the same as the Office's record of such papers. Furthermore, the below signature of Applicant's representative, Jonathon A. Szumny, attests that the above-mentioned copy of Applicant's record is a complete and accurate copy of Applicant's record of all correspondence between the Office and Applicant for the above-identified application during this time period, and that Applicant is not aware of any correspondence between the Office and Applicant for the above-identified application during this time period that is not among Applicant's records.

B) Request for Withdrawal of Holding of Abandonment:

As indicated above, a "Notice of Abandonment" was mailed by the Office on June 8, 2005 (see Exhibit B, paper no. 6). Before discussing why this holding of abandonment was improper, Applicant notes that the Notice of Abandonment was not mailed to the then-current Power of Attorney (see Exhibits A and B, paper no. 3) with a correspondence address of:

Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.
1300 I Street, N.W.
Washington, D.C. 20005-3315

Instead, the Notice of Abandonment was mailed to a then-old Power of Attorney with a correspondence address of:

McDermott Will & Emery LLP
600 13th Street, N.W.
Washington, D.C. 20005-3096

As noted in the "Request to Withdraw Holding of Abandonment" filed by Applicant on November 3, 2006 (see Exhibits A and B, paper no. 7), an "Examiner Callahan" of the Office (this might have been referring to the "Examiner Caldwell" that signed the Notice of Abandonment) indicated to Applicant (exact date unknown) that the above-identified application was abandoned sometime in June of 2005. Applicant and Examiner Caldwell did not appear to have knowledge of an exact date of abandonment because, as mentioned above, the Notice of Abandonment was mailed to an incorrect correspondence address and because the above-identified application was "lost". Many of the matters discussed herein (such as the Office mailing the Notice of Abandonment to the incorrect address) are compounded by the fact that the Office "lost" the above-identified application for a large period of time and only "found" the application on June 2, 2009 (as indicated on private PAIR's Transaction History tab), albeit with many papers still missing from the application.

In any event, and upon orally learning of the "then-alleged" abandonment of the above-identified application for allegedly failing to timely file an Appeal Brief (it was merely "alleged" at the time because Examiner Caldwell only orally indicated the abandonment, and presumably could not

provide a copy of the Notice of Abandonment because the case was "lost"), Applicant submitted to the Office the Request to Withdraw Holding of Abandonment on November 3, 2006 based on Applicant's timely filing of an Appeal Brief on March 25, 2002 as evidenced by the Office stamp on such date. There is no record that the Office ever responded to the Request to Withdraw Holding of Abandonment filed by Applicant on November 3, 2006.

With continued reference to the Notice of Abandonment mailed on June 8, 2005, the actual stated reason for abandonment was an alleged failure to timely file a proper reply to the Office Letter mailed on September 24, 2001. However, Applicant timely filed a Notice of Appeal with a one-month extension of time on January 24, 2002 as evidenced by the Office's stamp on such date (see Exhibit A, paper no. 5; also see "Contents Index" in file wrapper of the present application, paper no. 28). In this regard, the above-identified application was never abandoned in the first place, and therefore the Notice of Abandonment mailed on June 8, 2005 was improperly issued. Applicant therefore respectfully requests withdrawal of this holding of abandonment.

It is also noted that, irrespective of the "lost" nature of the above-identified application, the Office did not respond to any of the papers filed by Applicant during the approximate four-year time-span between the Appeal Brief filed by Applicant on March 25, 2002 and the Request to Withdraw Holding of Abandonment filed by Applicant on November 3, 2006, all of which were actually received by the Office as evidenced by the Office stamps on the various papers (see Exhibit A).

C) Request for Substantive Examination:

Upon reconstruction and withdrawal of the holding of abandonment of the above-identified application, Applicant respectfully requests substantive examination of the Appeal Brief timely filed by Applicant on March 25, 2002. In the event that a telephone discussion would expedite the prosecution of this application, the Office is invited to contact the undersigned.

Respectfully submitted,
MARSH FISCHMANN & BREYFOGLE LLP

By: _____
Jonathon A. Szaumny
Registration No. 57,695
Telephone: 303-770-0051

Date: January 10, 2011

Exhibit A

Copy of Applicant's Record of Correspondence Between USPTO and Applicant

Applicant: LI GONG

Docket No. 50435-015

Title/Mark: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

Serial/Reg./Patent No. 08/883,636

Date Sent: 3/25/02 ☒ Hand Carried ☐ Fax ☐ Electronic ☐ Cert. of Mailing ☐ Express Mail No. _____

☒ Transmittal Letter

New Patent App ☐ Utility ☐ Design ☐ Cont. ☐ C/P ☐ Div. ☐ PCT ☐ CPA ☐ RCE ☐ Prov

☐ Other: _____

_____ pages of Specification

_____ pages of Claims

_____ pages of Abstract

_____ pages of Formal/Informal Drawings

☐ Small Entity ☐ Large Entity

☐ Declaration/Power of Attorney

☐ Recordation of Assignment/Security Agreement

☐ Information Disclosure Statement

_____ Form PTO 1449

_____ copies of cited references

☐ Preliminary Amendment

☐ Response to Missing Parts Notice

☐ Resp. to Notice to Correct App. Papers

☐ Certified Copy of Priority Doc.

☐ Claim for Convention Priority

☐ Response/Amendment to Office Action of _____

☐ Request for _____ month Extension of Time

OIPE JC28 MAR 25 2002 PATENT & TRADEMARK OFFICE

☐ Letter submitting _____ pages of drawings

☐ Req. for Approval of Drawing Amendments

☐ Req. for Oral Hearing

☐ Not. of Appeal ☒ Appeal Brief ☐ Reply Brief (TRIPLICATE)

☐ Rule 312 Amendment/Letter

☐ Req. for Acknowledgement of Cited Art

☐ Issue Fee

☐ Publication Fee

☐ Req. for Certificate of Correction

☐ Maintenance Fee for _____ years after grant

☐ Fee Address Indication Form _____

☐ Terminal Disclaimer

☐ Petition to Commissioner

☐ Status Inquiry

☐ Other

Check for $		☒ Charge Deposit Acct. 500417 $	320	Atty Init.	WLS	Tkpr. #	5623	Secy. or PL:	CA. Collins

CMS Descrip.: 21 - $320

THE PATENT AND TRADEMARK OFFICE DATE STAMPED HEREON IS ACKNOWLEDGEMENT THAT THE ITEMS, CHECKED ABOVE, WERE RECEIVED BY THE PTO ON THE DATE STAMPED.

Docket No.: 50435-015 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of	:	
Li GONG	:	
Serial No.: 08/883,636	:	Group Art Unit: 2132
Filed: June 26, 1997	:	Examiner: D. Meislahn

For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

TRANSMITTAL OF APPEAL BRIEF

Commissioner for Patents
Washington, DC 20231

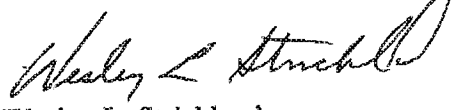
Sir:

Submitted herewith in triplicate is Appellant(s) Appeal Brief in support of the Notice of Appeal filed January 24, 2002. Please charge the Appeal Brief fee of $320.00 to Deposit Account 500417.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

MCDERMOTT, WILL & EMERY



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Date: March 25, 2002

Docket No.: 50435-015 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of	:	
Li GONG	:	
Serial No.: 08/883,636	:	Group Art Unit: 2132
Filed: June 26, 1997	:	Examiner: D. Meislahn

For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

APPEAL BRIEF

Commissioner for Patents
Washington, DC 20231

Sir:

This Brief is submitted pursuant to the Notice of Appeal submitted January 24, 2002 regarding the final rejection of claims 1-8, 13-20, 22-24, 26-32, 34 and 35 dated September 24, 2001.

REAL PARTY IN INTEREST

Sun Microsystems, Inc. is the real party in interest in the pending application.

RELATED APPEALS AND INTERFERENCES

No appeal or interference is known to Appellants that will affect or be directly affected by or have a bearing on the Board's decision in the pending appeal. There is a Petition For Review of A Director's Decision filed July 19, 2001 that is still pending

resolution.

STATUS OF CLAIMS

Claims 1-8, 13-20, 22-24, 26-32, 34 and 35 remain pending. All the pending claims stand under final rejection, from which rejection, this appeal is taken. Claim 29 is not specifically addressed in the detailed treatment of the claims in the Final Office Action; however, the Office Action Summary identifies claim 29 as rejected and Appellants have prepared this Appeal Brief under the assumption that the Examiner's actual intentions with regard to claim 29 are reflected by the Summary Sheet.

STATUS OF AMENDMENTS

None of the claims have been Amended after the Final Office Action dated September 24, 2001.

SUMMARY OF INVENTION

The present invention provides layer-independent secure communications in a multi-layered communication network. In general, a communication channel or connection is first established between a first multi-layered network node and a second multi-layered network node. Then, a first stream is established between a first process, executing on the first node, and the communication channel. A second stream is then established between a second process, executing on the second node, and the communication channel. As the first process writes data to the first stream, the data is encrypted and when the encrypted data is read out of the second stream by the second

process, the data is decrypted.

There are several benefits achieved by the claimed invention. These are set forth, for example, on pages 2 and 3 of the specification. When the amount of information included in session is small, for example, when a session contains only a single message, then the overhead contributable to set up negotiation can adversely affect communications performance. This negative is overcome by the claimed invention. Further, some communication architectures do not include a session layer, which requires that a session layer be added to support session type security, further degrading performance. Layer specific encryption can avoid the overhead penalty associated with set up negotiation, but it has additional limitations. First, encryption and decryption must occur at the same corresponding layer on both the transmitting and receiving network nodes. The traditional techniques such as the simple key management for internet protocols (SKIP) and secure sockets layer (SSL) each require layer specific function calls. The result is that one application implementing security according to SKIP cannot interact with another application implementing security according to SSL. In addition, layer-specific encryption could be difficult to employ an object-oriented environments because of the inherent level of abstraction required. For example, some layers operate of databytes, which often is a much lower level than objects in an object oriented environment.

ISSUES

The following issues are presented by this Appeal, whether the Examiner erred in:

a) rejecting claims 1, 5, 13, 17, 20, 24, 28, and 32 under 35 USC §102(e) for anticipation by *Helwig et al.* (US Patent No. 5,793,749);

b) rejecting claims 1, 5, 13, 17, 20, 24, 28, and 32 under 35 USC §102(b) for anticipation by *Schneier* (Applied Cryptography); and

c) rejecting claims 2, 3, 4, 6, 7, 8, 14, 15, 16, 18, 19, 22, 23, 26, 27, 30, 31, 34 and 35 under 35 USC §103 as unpatentable over either *Helwig et al.* or *Schneier.*

GROUPING OF CLAIMS

Each claim is argued separately and each claim stands or falls independently of any other.

ARGUMENT

A. The Examiner erred in rejecting claims 1, 5, 13, 17, 20, 24, 28 and 32 as anticipated by Helwig et al.

The factual determination that *Helwig et al.* identically disclose the claimed inventions recited in claims 1, 5, 13, 17, 20, 24, 28, and 32 under 35 USC §102(e) is erroneous given the differences between the claimed inventions and the system of *Helwig et al.* The portion of the specification of *Helwig et al.* relied upon by the Examiner refers to and describes Figure 3 and, more particularly, to a "pre-transmit process 68" within Figure 3. The whole purpose of that particular branch coming off of 66-Y (in which the pre-transmit process 68 is included) is to record a test message in memory.

The Examiner's rejection is predicated upon an inaccurate factual determination. The factual determination of lack of novelty under 35 USC §102 requires the identical disclosure in a single reference of each element of a claimed invention such that the

identically claimed invention is placed in possession of one having ordinary skill in the art. **Helfix, Ltd. v. Loc-Bloc, Ltd. 54 USPQ2d 1299 (Fed. Cir. 2000); TD Corporation v. Lydall, Inc. 159 F.3d. 534, 48 USPQ2d 1321 (Fed. Cir. 1998); Electro Medical Systems S.A. v. Coopoer Life Science, Inc., 34 F.3d. 1048, 32 USPQ2d 1017 (Fed. Cir. 1994).** There are significant differences between the invention recited in claims 1, 5, 13, 17, 20, 24, 28, and 32 and *Helwig et al.*'s system that contradict the factual determination that *Helwig et al.* identically describe the claimed invention within the meaning of 35 USC §102.

With respect to claim 1, there is no teaching or suggestion within *Helwig et al.* of:

a) establishing a communications channel in which there is then established "a first stream between the first process and the communication channel"; and

b) "establishing a second stream between the second process and the communication channel"; and

c) encrypting, independent of a transport protocol, data in response to the data being written to the first stream; and

d) decrypting, independent of the transport protocol, the encrypted data in response to the encrypted data being read form the second stream.

In addition to the features identified above with respect to claim 1, claim 5 recites a computer-readable medium, carrying code that when executed performs various functions. This requirement of claim 5 is not disclosed by *Helwig et al.*

In addition to the features identified above with respect to claim 1, claim 13 recites a computer data signal embodied on a carrier wave, representing instructions that when executed performs various functions. This requirement of claim 13 is not disclosed by *Helwig et al.*

With respect to claim 17, there is no teaching or suggestion within *Helwig et al.* of:

a) establishing a stream between a process and a communication channel; and

b) encrypting data independent of communication protocol layers in response to data being written to the stream.

With respect to claim 20, there is no teaching or suggestion in *Helwig et al.* of:

a) establishing a first stream from a first process to the communication channel; and

b) establishing a second stream from the communication channel to a second process.

In addition to the features identified above with respect to claim 20, claim 24 recites a computer-readable medium, carrying code that when executed performs various functions. This requirement of claim 24 is not disclosed by *Helwig et al.*

In addition to the features identified above with respect to claim 20, claim 28 recites a communications network performing the recited method steps. This requirement of claim 28 is not disclosed by *Helwig et al.*

In addition to the features identified above with respect to claim 20, claim 32 recites a computer data signal embodied on a carrier wave, representing instructions that when executed performs various functions. This requirement of claim 32 is not disclosed by *Helwig et al.*

The above argued differences between the claimed inventions and the system of *Helwig et al.* undermine the factual determination that *Helwig et al.* identically describe the claimed inventions within the meaning of 35 USC §102. **Kolster Speedsteel AB v. Crucible, Inc., 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986). Thus, the Examiner has failed to establish a prima facie case of anticipation.** Appellants, therefore, respectfully submit that each the imposed rejection of claims 1, 5, 13, 17, 20, 24, 28 and

32 under 35 USC §102 for lack of novelty, as evidenced by *Helwig et al.*, are independently factually erroneous.

B. The Examiner erred in rejecting claims 1, 5, 13, 17, 20, 24, 28 and 32 as anticipated by Schneier.

The Examiner erred in rejecting claims 1, 5, 13, 17, 20, 24, 28, and 32 under 35 USC §102(b) as anticipated by *Schneier* (Applied Cryptography). The factual determination that *Schneier* identically disclose the claimed inventions recited in claims 1, 5, 13, 17, 20, 24, 28, and 32 under 35 USC §102(b) is erroneous given the differences between the claimed inventions and the system of *Schneier*. *Schneier* describes an XOR encryption process, known as a stream cipher, with its corresponding decryption process. With respect to all the claims, this discussion of a ciphering model by *Schneier* does not disclose (or even suggest) establishment of a communications channel followed by establishing a stream between a process and the channel and another stream from the channel to an output process. Thus, the Examiner has failed to establish a *prima facie* case of anticipation.

With respect to claim 1, there is no teaching or suggestion within *Schneier* of:

a) establishing a communications channel in which there is then established "a first stream between the first process and the communication channel"; and

b) "establishing a second stream between the second process and the communication channel"; and

c) encrypting, independent of a transport protocol, data in response to the data being written to the first stream; and

d) decrypting, independent of the transport protocol, the encrypted data in

response to the encrypted data being read form the second stream.

In addition to the features identified above with respect to claim 1, claim 5 recites a computer-readable medium, carrying code that when executed performs various functions. This requirement of claim 5 is not disclosed by *Schneier*

In addition to the features identified above with respect to claim 1, claim 13 recites a computer data signal embodied on a carrier wave, representing instructions that when executed performs various functions. This requirement of claim 13 is not disclosed by *Schneier*

With respect to claim 17, there is no teaching or suggestion within *Schneier* of:

a) establishing a stream between a process and a communication channel; and

b) encrypting data independent of communication protocol layers in response to data being written to the stream.

With respect to claim 20, there is no teaching or suggestion in *Schneier* of:

a) establishing a first stream from a first process to the communication channel; and

b) establishing a second stream from the communication channel to a second process.

In addition to the features identified above with respect to claim 20, claim 24 recites a computer-readable medium, carrying code that when executed performs various functions. This requirement of claim 24 is not disclosed by *Schneier*.

In addition to the features identified above with respect to claim 20, claim 28 recites a communications network performing the recited method steps. This requirement of claim 28 is not disclosed by *Schneier*

In addition to the features identified above with respect to claim 20, claim 32

recites a computer data signal embodied on a carrier wave, representing instructions that when executed performs various functions. This requirement of claim 32 is not disclosed by *Schneier*

The above argued differences between the claimed inventions and the system of *Schneier* undermine the factual determination that *Schneier* identically describe the claimed inventions within the meaning of 35 USC §102. **Kolster Speedsteel AB v. Crucible, Inc., 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986).**

Thus, the Examiner has failed to establish a prima facie case of anticipation. Appellants, therefore, respectfully submit that each the imposed rejection of claims 1, 5, 13, 17, 20, 24, 28 and 32 under 35 USC §102 for lack of novelty, as evidenced by *Schneier*, are independently factually erroneous.

C. The factual determination that either *Helwig et al.* or *Schneier* identically disclose (or even suggest) a "stream" as meant and recited in <u>any</u> of the present claims is erroneous when the appropriate disclosures are considered as a whole and interpreted with internal consistency and from the perspective of one of ordinary skill.

Neither *Helwig et al.* nor *Schneier* teach or suggest the use of a "stream" as that term was used or applied in the specification and claims of the present application.

<u>Helwig et al.</u>:

Helwig et al. does refer to a "data stream" However, the use of similar <u>sounding</u> terms is not necessarily the same as using terms that <u>mean</u> the same thing. Therefore, the mere use of similar sounding terms does not end the inquiry into whether a reference can be considered as identically disclosing the same subject matter. The meaning of "data streams" in *Helwig et al.* is interpreted in the context of that specification and within

Helwig et al. the "data streams" are a series of bits output from a vocoder and are used as a description of the data's particular physical format.

In contrast to the interpretation as meant by *Helwig et al.*, the present claim term "stream" is to be interpreted in light of the claim language, the specification, and the prosecution history; and the interpretation proceeds from the vantage point of one skilled in the art. **Atlantic Thermoplastics Co., Inc. v. Faytex Corp., 970 F.2d 834, 23 USPQ2d 1481 (Fed. Cir. 1992); Haynes International, Inc. v. Jessop Steel Co., 8 F.3d 1573, 28 USPQ2d 1652 (Fed. Cir. 1993).** Ultimately, claim language is construed according to the standard of what those words would have meant to one skilled in the art as of the application date. **Weiner v. NEC Electronics, Inc., 102 F.3d 534, 41 USPQ2d 1023 (Fed. Cir. 1996).**

It is important to interpret the phrase "stream" within the claims in a way which is consistent with the specification, rather than at odds to it. For example, one would obviously not interpret "stream" in the context of this application as referring to a flow of water down a mountain side. On page 4 of the specification, beginning line 9, the application introduces a "stream" as an abstraction which refers to the transfer or "flow" of data, in any format, from a single source, to a single destination. Let us consider the following example in the context of Figure 1 of the application. Let us assume that process 108 is an MPEG2 transmission process. It may generate a plurality of "streams", such as a left channel audio, a right channel audio, a video, a closed-captioned stream, and a control channel stream. When the MPEG2 transmission process 108 desires to send information to process 110, which, in this example, is an MPEG2 display process, a communications channel would be set up between node 108 and node 104 then, the individual streams

would be applied to the communications channel for transmission to the node 104. Note that the communication channel from the process 108 goes through all of the layers shown in Figure 1 of each protocol stack, namely the application layer, presentation layer, session layer, transport layer, network layer, datalink layer, and physical layer before going across the transmission medium to the other node and then passing through the same layers as an inverse order. It is known in the art to apply layer specific encryption at any of the layers of the OSI reference model shown in Figure 1.

If the invention of claim 1 were applied to a communication system which corresponded to the OSI reference model, first, communications would be established between the first network node and the second network node. The request for connection would come from the process 108 to the application layer and appropriately process through the layers until a connection is set up to node 104. Once that is done, a first stream, say, for example, an MPEG control channel stream is established between the first process 108 and the communications channel which begins at application layer 118. At the other end, a stream would be established between the application layer 128 of node 104 and the process 110 for the MPEG control channel data. As set forth in limitation d) of claim 1, in response to data being written to the first stream [from process 108] the data is encrypted to generate encrypted data which is then applied to the application layer 118. The encryption is performed independently of any of the layers of the communications protocol stack. Note that in the example of MPEG2, encryption can be applied selectively to the streams rather than to everything that is transmitted over the communications channel. In OSI reference model, the layer normally responsible for encryption is the presentation layer while the application layer, 118, handles the interface between the

software involved with the process 108 and the communications channel.

One limitation of claim 1 states "in response to the encrypted data being read from the second stream, decrypting the encrypted data to recover the decrypted data."

As used within the present application, "stream" is an abstraction, which has properties beyond merely being a string of binary digits. "Streams", as would be understood by a skilled software practitioner, are defined in object oriented languages such as Java and have a whole set of associated properties which distinguish them from a flow of water down the mountain side and which also distinguish them from simply an arbitrary string of binary 1's and 0's.

Schneier:

With regards to *Schneier*, the referenced portion (Section 9.4) of his book **Applied Cryptography** describes a cipher model known as "Stream Ciphers". In particular, the Examiner relies of Figure 9.6 as anticipating the present claims. So, similar to Helwig et. al., *Schneier* also uses a similar sounding term -- "stream cipher"; but, once again, the inquiry is not whether similar sounding terms are being used but whether the terms being used convey an identical disclosure of subject matter as required under 35 USC §102.

The following information from **Ritter's Crypto Glossary and Dictionary of Technical Cryptography** (Current Edition: 2002 Feb 18, which can be found at, for example, http://www.ciphersbyritter.com/GLOSSARY.HTM)provides a helpful context for evaluating the disclosure of *Schneier*.

The glossary has a heading of "Cipher Taxonomy" which includes the following

definitions:

> **BLOCK CIPHER**
> A block cipher requires the accumulation of some amount of data or multiple data elements for ciphering to complete. (Sometimes stream ciphers accumulate data for convenience, as in cylinder ciphers, which nevertheless logically cipher each character independently.)
>
> **STREAM CIPHER**
> A stream cipher does not need to accumulate some amount of data or multiple data elements for ciphering to complete. (Since we define only two main "types" of cipher, a stream cipher is the opposite of a block cipher and vise versa. It is extremely important that the definitions for block and stream ciphering enclose the universe of all possible ciphers.) A stream cipher has the ability to transform individual elements one-by-one. The actual transformation usually is a block transformation, and may be repeated with the same or different keying.

A later heading in this Glossary that relates to a "Stream Cipher" further agrees with the specific XOR implementation of *Schneier* by describing a stream cipher as:

> a cipher which directly handles messages of arbitrary size by ciphering individual data elements, such as bits or bytes or characters. Conventionally, some form of keyed random number generator is used to produce a confusion sequence or running key. That sequence is then combined with plaintext data by exclusive-OR to produce ciphertext. Enciphering individual characters allows ciphering to begin immediately, avoiding the need to accumulate a full block of data before ciphering, as is necessary in a conventional block cipher. But note that a stream cipher can be seen as an operating mode, a "streaming" of a tiny block transformation. Stream ciphers can be called "combiner-style" ciphers. Also see: a cipher taxonomy.

Appellants urge that the high-level discussion of a stream ciphering model by *Schneier* does not provide the requisite identical disclosure of the "stream" abstraction as intended and used in the present specification and claims.

Thus, the Examiner has failed to establish a *prima facie* case of anticipation of the

claims when the claims, *Schneier* and *Helwig et al.* are all properly interpreted, because such an interpretation reveals that neither of the references identically disclose the "stream" recited in the claims.

D. The Examiner erred in rejecting claims 3, 4, 7, 8, 15, 16, 18, 19, 22, 23, 26, 27, 29, 30, 31, 34, and 35 as unpatentable over either Helwig et al. or Schneier.

Claims 3, 4, 7, 8, 15, 16, 18, 19, 22, 23, 26, 27 [and 29], 30, 31, 34 and 35 are not obvious over either *Helwig et al.* or *Schneier* because neither of these references teach or other wise suggest a Java-based stream or communication channel and, thus, the Examiner did not discharge the initial burden of establishing a prima facie basis to deny patentability to the claimed invention under 35 USC §103.

In applying these references to the claims, the Examiner states:

> "They do not say that the communication channels or data streams are Java-based. Official notice is taken that it is old and well-known that Java is intended for networked/distributed environments and enables the construction of virus-free, tamper-free systems. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to base the systems of *Schneier* or *Helwig et al.*, all of which are networked or distributed environments, on Java, as is known in the art. This would enable the implementation of a virus-free, tamper-free system."

The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention under any statutory provision always rests upon the Examiner. **In re Mayne, 41 USPQ2d 1451 (Fed .Cir. 1997); In re Deuel, 34 USPQ2d 1210 (Fed. Cir. 1995); In re Bell, 26 USPQ2d 1529 (Fed. Cir. 1993); In re Oetiker, 24 USPQ2d 1443 (Fed. Cir. 1992).** In rejecting a claim under 35 U.S.C. § 103, the Examiner is required to provide a factual basis to support the obviousness conclusion. **In re Warner, 154 USPQ 173 (CCPA 1967); In re Lunsford, 148 USPQ 721 (CCPA 1966); In re Freed,**

165 USPQ 570 (CCPA 1970). The Examiner is required to show that all the claim limitations are taught or suggested by the references along with some motivation to combine the teachings of the references. **In re Royka, 180 USPQ 580 (CCPA 1974); In re Wilson, 165 USPQ 494 (CCPA 1970).**

In addition, it has been repeatedly held by the Court of Appeals for the Federal Circuit that in order to establish the requisite realistic motivation, the Examiner must make "clear and particular" factual findings as to a specific understanding or specific technological principle which would have realistically impelled one having ordinary skill in the art to modify a particular prior art device (the device of either *Schmeier* or *Helwig et al.*) to arrive at the claimed invention based upon facts--not generalizations. **Ruiz v. A.B. Chance Co., 234 F.2d 654, 57 USPQ2d 1161 (Fed. Cir. 2000); Ecolochem Inc. v. Southern California Edison, Co. 227 F.3d 361, 56 USPQ2d 1065 (Fed. Cir. 2000); In re Kotzab, 217 F.3d 1365, 55 USPQ 1313 (Fed. Cir. 2000); In re Dembiczak, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999).** Moreover, the Examiner is required to explain **why** one having ordinary skill in the art would have been realistically led to modify the devices of either *Schmeier* or *Helwig et al.* to arrive at the claimed invention. **Ecolochem Inc. v. Southern California Edison, Co. supra.; In re Rouffet, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir. 1998).** Significantly, the requisite motivation must be undertaken with a reasonably expectation of successfully achieving the objective of either *Schmeier* or *Helwig et al.* **In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).**

Appellant would heavily rely upon the legal tenet that regardless of what the Examiner perceives as the source of motivation in the prior art, the Examiner must

provide "a convincing discussion of the specific sources of the motivation to combine the prior art references...". **Ecolochem Inc. v. Southern California Edison, Co. 227 F.3d 1361, 56 USPQ2d 1065 (Fed. Cir. 2000)**. This basis legal tenet was recently enforced by the Court of Appeals for the Federal Circuit in **In re Lee** ____**F.3d** ____, **61USPQ2d 1430 (Fed. Cir. 2002)**, wherein the Court emphasized that the motivational element is a factual question which requires substantial evidence--not conclusory statements.

Appellants continue to insist that the range and content of the Examiner's Official Notice is factually and legally erroneous. But, assuming for the sake of argument that the Official Notice was effective for what the Examiner asserts, Appellants urge that the requirements of 35 USC §103 have still not been satisfied. The Examiner has failed to provide a cogent explanation of why one of ordinary skill would have been motivated to modify the message storing device of to *Helwig et al.* to add, for example, the complexity, additional hardware and cost of Java processing capability in the first place. Additionally, the Examiner has failed to provide a cogent explanation of why one of ordinary skill would have been motivated to augment the general discussion of enciphering and deciphering models by *Schneier* to specifically involve Java and Java streams. The Examiner states that Java "enables construction of virus-free, tamper-free systems". This type of generalization about technology is exactly the danger of which the courts have repeatedly warned against and the type of reasoning which the courts have repeatedly found erroneous. The establishment of a prima facie case of obviousness must factually explain why one of ordinary skill would have been motivated to combine specific teachings, in a specific way in order to arrive at a specific invention.

The Examiner's Official Notice (even if true) that Java might have use in tamper-free systems, is not a factual explanation of why a skilled artisan would have found it obvious to modify the specific systems taught by *Schneier* or *Helwig et al.* with some reasonable expectation of success.

If the Examiner were to implement the *Schneier* or *Helwig et al.* systems, using Java streams and Java secure channels, it would still not result in the claimed invention. In fact, if the phrases "communication channel" and "stream" as used in each of the references are interpreted to be a "Java stream" and "Java secure communication channel," the interpretation of the references as applied to the independent claims would have to change so dramatically as to show their inapplicability under 35 USC §102.

Appellants urge that the Examiner committed clear factual and legal errors. Specifically, without the benefit of any facts, the Examiner expanded the teachings of the applied references to whatever level he needed in order to combine them, relying only upon his "official notice" ability, in complete violation of **Ex parte Stern, 13 USPQ2d 1379 (BPAI 1987).**

Appellants recognize that the specific limitations recited in the different "families" of dependent claims appear to be very similar. However, as the patentability of each of the independent claims was separately argued, Appellants wish to stress that the dependent claims also stand or fall individually and are not being grouped together.

With respect to claim 3, the claim recites a first Java stream, a second Java stream, and a Java secure channel. These requirements of claim 3 are not disclosed or suggested by either *Helwig et al.* or *Schneier*.

With respect to claim 4, the claim recites a first Java stream, a second Java stream,

a third Java stream, and a Java secure channel. These requirements of claim 4 are not disclosed or suggested by either *Helwig et al.* or *Schneier*.

With respect to claim 7, the claim recites a first Java stream, a second Java stream, and a Java secure channel. These requirements of claim 7 are not disclosed or suggested by either *Helwig et al.* or *Schneier*.

With respect to claim 8, the claim recites a first Java stream, a second Java stream, a third Java stream, and a Java secure channel. These requirements of claim 8 are not disclosed or suggested by either *Helwig et al.* or *Schneier*.

With respect to claim 15, the claim recites a first Java stream, a second Java stream, and a Java secure channel. These requirements of claim 15 are not disclosed or suggested by either *Helwig et al.* or *Schneier*.

With respect to claim 16, the claim recites a first Java stream, a second Java stream, a third Java stream, and a Java secure channel. These requirements of claim 16 are not disclosed or suggested by either *Helwig et al.* or *Schneier*.

With respect to claim 18, the claim recites a first Java stream and a Java secure channel. These requirements of claim 18 are not disclosed or suggested by either *Helwig et al.* or *Schneier*.

With respect to claim 19, the claim recites a first Java stream, a second Java stream, and a Java secure channel. These requirements of claim 19 are not disclosed or suggested by either *Helwig et al.* or *Schneier*.

With respect to claim 22, the claim recites a first Java stream, a second Java stream, and a Java secure channel. These requirements of claim 22 are not disclosed or suggested by either *Helwig et al.* or *Schneier*.

With respect to claim 23, the claim recites a first Java stream, a second Java stream, a third Java stream, and a Java secure channel. These requirements of claim 23 are not disclosed or suggested by either *Helwig et al.* or *Schneier.*

With respect to claim 26, the claim recites a first Java stream, a second Java stream, and a Java secure channel. These requirements of claim 26 are not disclosedor suggested by either *Helwig et al.* or *Schneier.*

With respect to claim 27, the claim recites a first Java stream, a second Java stream, a third Java stream, and a Java secure channel. These requirements of claim 27 are not disclosed or suggested by either *Helwig et al.* or *Schneier.*

With respect to claim 29, the claim recites that the encryption of the first stream and the decryption of the second stream is specific to a communication protocol layer. This requirement of claim 29 is not disclosed or suggested by either *Helwig et al.* or *Schneier.*

With respect to claim 30, the claim recites a first Java stream, a second Java stream, and a Java secure channel. These requirements of claim 30 are not disclosed or suggested by either *Helwig et al.* or *Schneier.*

With respect to claim 31, the claim recites a first Java stream, a second Java stream, a third Java stream, and a Java secure channel. These requirements of claim 31 are not disclosed or suggested by either *Helwig et al.* or *Schneier.*

With respect to claim 34, the claim recites a first Java stream, a second Java stream, and a Java secure channel. These requirements of claim 34 are not disclosed or suggested by either *Helwig et al.* or *Schneier.*

With respect to claim 35, the claim recites a first Java stream, a second Java stream, a third Java stream, and a Java secure channel. These requirements of claim 35 are not

disclosed or suggested by either *Helwig et al.* or *Schneier*.

The above argued differences between the claimed inventions and the system of *Helwig et al.* and *Schneier* undermine the factual determination that *Helwig et al.* and *Schneier* provide a prima facie case of obviousness within the meaning of 35 USC §103 of claims 3, 4, 7, 8, 15, 16, 18, 19, 22, 23, 26, 27, 30, 31, 34 and 35

E. The Examiner erred in rejecting claims 2, 6, and 14 as unpatentable over either Helwig et al. or Schneier.

Claims 2, 6, and 14 are not obvious over either *Helwig et al.* or *Schneier* because neither of these references teach or other wise suggest performing communication protocol layer specific encryption or decryption of the data and, thus, the Examiner did not discharge the initial burden of establishing a prima facie basis to deny patentability to the claimed invention under 35 USC §103.

In rejecting these claims, the Examiner asserts that if some encryption is good, then more encryption is better. Appellants admit that some liberty was taken with paraphrasing the Examiner's comments; however, if read carefully, his assertions really do not say anything more than the above generalization. As stated previously, the Examiner must make "clear and particular" factual findings as to a specific understanding or specific technological principle which would have realistically impelled one having ordinary skill in the art to modify a particular prior art device (the device of either *Schneier* or *Helwig et al.*) to arrive at the claimed invention based upon facts--not generalizations.

Each of claims 2, 6 and 14 require more than simply a second encryption step. The claims recite that the encryption being performed be "a communication protocol

layer specific encryption." The Examiner has not explained why a skilled artisan, with either *Schneier* or *Helwig et al.* in hand, would have found it obvious to add to the respective systems a communication layer protocol specific encryption. *Schneier* does not disclose a stream cipher in the context of networked nodes communicating over a channel and *Helwig et al.* is concerned about storing a message, not with secure communications. Additionally, *Helwig et al.* discusses the need for responsiveness in their system and one skilled in the art would not have adversely impacted performance in such a system by adding another layer of encryption processing. Accordingly, the Examiner's generalization might indicate that employing multiple layers of encryption was known and even that protocol specific encryption was known. However, these conclusions fall far short of establishing a prima facie case of obviousness under 35 USC §103. The Examiner has failed to provide a fact-based rationale why one of ordinary skill would have been motivated to modify specifically *Schneier* or *Helwig et al.* with a second encryption/decryption step and why that skilled artisan would have performed the encryption/decryption as being protocol layer specific.

The lack of a fact-based explanation for expanding the teachings of *Helwig et al.* and *Schneier* undermine the factual determination that *Helwig et al.* and *Schneier* provide a prima facie case of obviousness within the meaning of 35 USC §103 of claims 2, 6, and 14.

F. Claims 2, 3, 4, 6, 7, 8, 14, 15, 16, 18, 19, 22, 23, 26, 27 [and 29], 30, 31, 34 and 35 are not obvious over either *Helwig et al.* or *Schneier* because neither of these references anticipate the respective independent claims from which these claims depend and, thus, the Examiner did not discharge the initial burden of establishing a prima facie basis to deny patentability to the claimed invention under 35 USC §103.

In rejecting the dependent claims, the Examiner relies on either *Helwig et al.* or *Schneier* as applied to the independent claims and then asserts, through "Official Notice" that the specific features in the dependent claims are well-known.

As argued above, neither of the applied references disclose all the features of the independent claims -- features which are incorporated into respective dependent claims. Accordingly, for the reasons presented above, with regard to the independent claims, neither reference discloses or suggests every feature recited in the dependent claims.

Neither *Schneier* nor *Helwig et al.*, therefore, provide the factual basis needed to properly establish a prima facie case of obviousness under 35 USC §103.

CONCLUSION

For the reasons advanced above, the Examiner's factual determination that *Schneier* identically describes the claimed inventions of claims 1, 5, 13, 17, 20, 24, 28 and 32, within the meaning of 35 USC §102, is erroneous. For the reasons advanced above, the Examiner's factual determination that *Helwig et al.* identically describe the claimed inventions of claims 1, 5, 13, 17, 20, 24, 28 and 32, within the meaning of 35 USC §102, is erroneous. Appellants, therefore, respectfully solicit the Honorable Board to **reverse** each of the Examiner's rejections.

For the reasons advanced above, Appellants submit that the Examiner did not establish a *prima facie* basis to deny patentability to any of the claims on Appeal under 35 USC §103. Appellants, therefore, respectfully solicit the Honorable Board to reverse each of the Examiner's rejections under 35 USC §103.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 50-0417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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APPENDIX

1. (Twice Amended) A method for providing communication protocol layer independent security for data transmitted between a first process, executing on a first network node, and a second process, executing on a second network node, wherein the first network node and the second network node each support at least one common communication protocol layer, the method comprising the steps of:

establishing a communication channel between the first network node and the second network node;

establishing a first stream between the first process and the communication channel;

establishing a second stream between the second process and the communication channel;

in response to the data being written to the first stream, encrypting the data to generate encrypted data, the encrypting of the data being performed independent of any communication protocol layers used to transport the encrypted data from the first network node to the second network node;

causing the encrypted data to be transmitted from the first network node to the second network node according to the at least one communication protocol layer supported by the first and second network nodes; and

in response to the encrypted data being read from the second stream, decrypting the encrypted data to recover decrypted data which is identical to the data on the first network node before the data was written to the first stream, the decrypting of

the encrypted data being performed independent of any communication protocol layers used to transport the encrypted data from the first network node to the second network node.

2. (Thrice Amended) The method of Claim 1, further including the steps of

performing a communication protocol layer specific encryption of the data on the first network node, and

performing a communication protocol layer specific decryption of the data on the second network node.

3. The method of Claim 1, wherein the communication channel is a Java secure channel,

wherein the first stream is a first Java stream,

wherein the second stream is a second Java stream,

wherein the step of establishing a communication channel between the first and second network nodes further comprises the step of establishing a Java secure channel between the first and second network nodes,

wherein the step of establishing a first stream between the first process and the communication channel further comprises the step of establishing a first Java stream between the first process and the Java secure channel, and

wherein the step of establishing a second stream between the second process and the communication channel further comprises the step of establishing a second Java stream between the second process and the Java secure channel.

4. (Twice Amended) The method of Claim 1, wherein the communication channel is a Java secure channel, wherein the first stream is a Java stream,

wherein the second stream is a Java stream,

wherein the method further comprises the step of connecting the Java secure channel to a third Java stream, and

wherein the third Java stream provides for the transmission of data according to a specific communication protocol layer.

5. (Twice Amended) A computer-readable medium carrying one or more sequences of one or more instructions for providing communication protocol layer independent security for data transmitted between a first process, executing on a first network node, and a second process, executing on a second network node, wherein the first network node and the second network node each support at least one common communication protocol layer, the one or more sequences of one or more instructions including instructions which, when executed by one or more processors, cause the one or more processors to perform the steps of:

establishing a communication channel between the first network node and the second network node;

establishing a first stream between the first process and the communication channel;

establishing a second stream between the second process and the communication channel;

in response to the data being written to the first stream, encrypting the data to

generate encrypted data, the encrypting of the data being performed independent of any communication protocol layers used to transport the encrypted data from the first network node to the second network node;

causing the encrypted data to be transmitted from the first network node to the second network node according to the at least one communication protocol layer supported by the first and second network nodes; and

in response to the encrypted data being read from the second stream, decrypting the encrypted data to recover decrypted data which is identical to the data on the first network node before the data was written to the first stream, the decrypting of the encrypted data being performed independent of any communication protocol layers used to transport the encrypted data from the first network node to the second network node.

6. (Twice Amended) The computer-readable medium of Claim 5, wherein the computer-readable medium further includes instructions for performing the steps of

performing a communication protocol layer specific encryption of the data on the first network node, and

performing a communication protocol layer specific decryption of the data on the second network node.

7. The computer-readable medium of Claim 5, wherein the first stream is a first Java stream,

wherein the second stream is a second Java stream,

wherein the step of establishing a communication channel between the first and

second network nodes further comprises the step of establishing a Java secure channel between the first and second network nodes,

wherein the step of establishing a first stream between the first process and the communication channel further comprises the step of establishing a first Java stream between the first process and the Java secure channel, and

wherein the step of establishing a second stream between the second process and the communication channel further comprises the step of establishing a second Java stream between the second process and the Java secure channel.

8. (Amended) The computer-readable medium of Claim 5, wherein the communication channel is a Java secure channel,

wherein the first stream is a Java stream,

wherein the second stream is a Java stream,

wherein the computer-readable medium further includes instructions for connecting the Java secure channel to a third Java stream, and

wherein the third Java stream provides for the transmission of data according to a specific communication protocol layer.

13. (Twice Amended) A computer data signal embodied in a carrier wave and representing sequences of instruction which, when executed by one or more processors, provide communication protocol layer independent security for data transmitted between a first process, executing on a first network node, and a second process, executing on a second network node, according to at least one common communication protocol layer

supported by the first and second network nodes, by performing the steps of:

establishing a communication channel between the first network node and the second network node;

establishing a first stream between the first process and the communication channel;

establishing a second stream between the second process and the communication channel;

in response to the data being written to the first stream, encrypting the data to generate encrypted data, the encrypting of the data being performed independent of any communication protocol layers used to transport the encrypted data from the first network node to the second network node;

causing the encrypted data to be transmitted from the first network node to the second network node according to the at least one communication protocol layer supported by the first and second network nodes; and

in response to the encrypted data being read from the second stream, decrypting the encrypted data to recover decrypted data which is identical to the data on the first network node before the data was written to the first stream, the decrypting of the encrypted data being performed independent of any communication protocol layers used to transport the encrypted data from the first network node to the second network node.

14. (Twice Amended) The computer data signal of Claim 13, wherein the computer sequence of instructions further includes instructions for performing the steps of

performing a communication protocol layer specific encryption of the data on the first network node, and

performing a communication protocol layer specific decryption of the data on the second network node.

15. The computer data signal of Claim 13, wherein the first stream is a first Java stream,

wherein the second stream is a second Java stream,

wherein the step of establishing a communication channel between the first and second network nodes further comprises the step of establishing a Java secure channel between the first and second network nodes,

wherein the step of establishing a first stream between the first process and the communication channel further comprises the step of establishing a first Java stream between the first process and the Java secure channel,

wherein the step of establishing a second stream between the second process and the communication channel further comprises the step of establishing a second Java stream between the second process and the Java secure channel.

16. (Amended) The computer data signal of Claim 13, wherein the communication channel is a Java secure channel,

wherein the first stream is a Java stream,

wherein the second stream is a Java stream,

wherein the computer sequence of instructions further includes instructions for

connecting the Java secure channel to a third Java stream, and

wherein the third Java stream provides for the transmission of data according to a specific communication protocol layer.

17. (Amended) A method for providing communication protocol layer independent security for data transmitted by a process executing on a network node, the method comprising the steps of:

a) establishing a stream between the process and a communication channel; and

b) in response to the data being written to the stream, encrypting the data to generate encrypted data, the encrypting of the data being performed independent of any communication protocol layers used to transport the encrypted data on the communication channel.

18. (Amended) The method of Claim 17, wherein the communication channel is a Java secure channel,

wherein the stream is a first Java stream, and

wherein the step of establishing a stream between the process and the communication channel further comprises the step of establishing a Java stream between the process and the Java secure channel.

19. (Amended) The method of Claim 17, wherein the communication channel is a Java secure channel, wherein the stream is a Java stream,

wherein the method further comprises the step of connecting the Java secure channel to a second Java stream, and

wherein the second Java stream provides for the transmission of data according to a specific communication protocol layer.

20. (Amended) A method for providing communication protocol-independent security for data transmitted between a first node and a second node, the method comprising the steps of:

establishing a communication channel between a first network node and a second network node;

establishing a first stream from a first process to the communication channel after the establishment of the communication channel, wherein the first stream is encrypted after the first process and before entering the communication channel and the encrypted first stream is independent of any communication protocol layers; and

establishing a second stream from the communication channel to a second process after the establishment of the communication channel, wherein the second stream is decrypted after the communication channel and before entering the second process.

22. (Amended) The method of claim 20, wherein:

the first stream is a first Java stream;

the second stream is a second Java stream;

the step of establishing a communication channel between the first network node

and second network node further comprises the step of establishing a Java secure channel between the first network node and second network node;

the step of establishing the first stream comprises the step of establishing the first Java stream after the first process and before the Java secure channel; and

the step of establishing a second stream comprises the step of establishing the second Java stream after the Java secure channel and before the second process.

23. (Amended) The method of claim 20, wherein:

the communication channel is a Java secure channel;

the first stream is a Java stream;

the second stream is a Java stream;

the method further comprises the step of connecting the Java secure channel to a third Java stream; and

the third Java stream provides for the transmission of data according to a specific communication protocol layer.

24. (Amended) A computer-readable medium carrying one or more sequences of one or more instructions for providing communication protocol-layer independent security for data transmitted between a first node and a second node, the one or more sequences of one or more instructions including instructions which, when executed by one or more processors, cause the one or more processors to perform the steps of:

establishing a communication channel between a first network node and a second network node;

establishing a first stream from a first process to the communication channel after the establishment of the communication channel, wherein the first stream is encrypted after the first process and before entering the communication channel and the encrypted first stream is independent of any communication protocol layers; and

establishing a second stream from the communication channel to a second process after the establishment of the communication channel, wherein the second stream is decrypted after the communication channel and before entering the second process.

26. (Amended) The computer-readable medium of claim 24, wherein:

the first stream is a first Java stream;

the second stream is a second Java stream;

the step of establishing a communication channel between the first network node and second network node further comprises the step of establishing a Java secure channel between the first network node and second network node;

the step of establishing the first stream comprises the step of establishing the first Java stream after the first process and before the Java secure channel; and

the step of establishing a second stream comprises the step of establishing the second Java stream after the Java secure channel and before the second process.

27. The method of claim 24, wherein:

the communication channel is a Java secure channel;

the first stream is a Java stream;

the second stream is a Java stream

the method further comprises the step of connecting the Java secure channel to a third Java stream; and

the third Java stream provides for the transmission of data according to a specific communication protocol layer.

28. (Amended) A communications network providing communication protocol-independent security for data transmitted between a first node and a second node, the communication network performing the steps of:

establishing a communication channel between a first network node and a second network node;

establishing a first stream from a first process to the communication channel after the establishment of the communication channel, wherein the first stream is encrypted after the first process and before entering the communication channel and the encrypted first stream is independent of any communication protocol layers; and

establishing a second stream from the communication channel to a second process after the establishment of the communication channel, wherein the second stream is decrypted after the communication channel and before entering the second process.

29. The communication network of claim 28, wherein the encryption of the first stream and the decryption of the second stream is specific to a communication protocol layer.

30. (Amended) The communication network of claim 28, wherein:

the first stream is a first Java stream;

the second stream is a second Java stream;

the step of establishing a communication channel between the first network node and second network node further comprises the step of establishing a Java secure channel between the first network node and second network node;

the step of establishing the first stream comprises the step of establishing the first Java stream after the first process and before the Java secure channel; and

the step of establishing a second stream comprises the step of establishing the second Java stream after the Java secure channel and before the second process.

31. The communication network of claim 28, wherein:

the communication channel is a Java secure channel;

the first stream is a Java stream;

the second stream is a Java stream

the method further comprises the step of connecting the Java secure channel to a third Java stream; and

the third Java stream provides for the transmission of data according to a specific communication protocol layer.

32. (Amended) A computer data signal embodied in a carrier wave and representing sequences of instructions which, when executed by one or more processor, provide communication protocol-independent security for data transmitted between a

first node and a second node, by performing the steps of:

establishing a communication channel between a first network node and a second network node;

establishing a first stream from a first process to the communication channel after the establishment of the communication channel, wherein the first stream is encrypted after the first process and before entering the communication channel and the encrypted first stream is independent of any communication protocol layers; and

establishing a second stream from the communication channel to a second process after the establishment of the communication channel, wherein the second stream is decrypted after the communication channel and before entering the second process.

34. (Amended) The computer data signal of claim 32, wherein:

the first stream is a first Java stream;

the second stream is a second Java stream;

the step of establishing a communication channel between the first network node and second network node further comprises the step of establishing a Java secure channel between the first network node and second network node;

the step of establishing the first stream comprises the step of establishing the first Java stream after the first process and before the Java secure channel; and

the step of establishing a second stream comprises the step of establishing the second Java stream after the Java secure channel and before the second process.

35. The computer data signal of claim 32, wherein:

the communication channel is a Java secure channel;

the first stream is a Java stream;

the second stream is a Java stream

the method further comprises the step of connecting the Java secure channel to a third Java stream; and

the third Java stream provides for the transmission of data according to a specific communication protocol layer.

JAB/DLG

PLEASE STAMP TO ACKNOWLEDGE RECEIPT OF THE FOLLOWING:

In Re Application of: Li GONG

Application No.: 08/883,636 Group Art Unit: 2123

Filed: June 26, 1997 Examiner: D. Meislahn

For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

1. Change of Customer Number and correspondence Address; and
2. Revocation of Power of Attorney and Grant of New Power of Attorney.

Dated November 21, 2003

Docket No.: 06502.0515-00000 (Due Date: N/A)

DLG:jab - **J. Bachman, MD 322**

pkrg 11/24/03

PATENT
Customer No. 22,852
Attorney Docket No. 06502.0515-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	
Li GONG	Group Art Unit: 2123
Application No.: 08/883,636	Examiner: D. Meislahn
Filed: June 26, 1997	
For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS	

Commissioner for Patents
PTO Box 1450
Alexandria, VA 22313-1450

Sir:

CHANGE OF CUSTOMER NUMBER AND CORRESPONDENCE ADDRESS

Effective immediately, please make the following changes concerning all future correspondence with respect to the above-identified patent application:

Customer No.	22,852
Attorney Docket No.	06502.0515-00
Address:	FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P. 1300 I Street, N.W. Washington, D.C. 20005-3315
Telephone:	(202) 408-4000
Facsimile	(202)-408-4400

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.

Dated: November 21, 2003

D. Kent Stier
Reg. No. 50,640

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

PATENT
Customer No. 22,852
Attorney Docket No. 06502.0515

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Li GONG

Application No.: 08/883,636

Filed: June 26, 1997

For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

Group Art Unit: 2123

Examiner: D. Meislahn

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

REVOCATION OF POWER OF ATTORNEY
AND GRANT OF NEW POWER OF ATTORNEY

The undersigned, a representative authorized to sign on behalf of the assignee owning all of the interest in this patent application, hereby revokes all previous powers of attorney or authorization of agent granted in this application before the date of execution hereof. The undersigned verifies that **Sun Microsystems, Inc.** is the assignee of the entire right, title, and interest in the patent application identified above by virtue of an assignment from the inventor recorded in the U.S. Patent and Trademark Office at Reel 8661, Frame 0966. The undersigned certifies that the evidentiary documents have been reviewed and to the best of the undersigned's knowledge and belief, title is in the name of **Sun Microsystems, Inc.** Attached is a photocopy of the Notice of Recordation of Assignment issued by the U.S. Patent and Trademark Office,

together with a photocopy of the recorded Assignment. The undersigned hereby grants its power of attorney to Douglas B. Henderson, Reg. No. 20,291; Ford F. Farabow, Jr., Reg. No. 20,630; Arthur S. Garrett, Reg. No. 20,338; Donald R. Dunner, Reg. No. 19,073; Brian G. Brunsvold, Reg. No. 22,593; Tipton D. Jennings, IV, Reg. No. 20,645; Jerry D. Voight, Reg. No. 23,020; Laurence R. Hefter, Reg. No. 20,827; Kenneth E. Payne, Reg. No. 23,098; Herbert H. Mintz, Reg. No. 26,691; C. Larry O'Rourke, Reg. No. 26,014; Albert J. Santorelli, Reg. No. 22,610; Michael C. Elmer, Reg. No. 25,857; Richard H. Smith, Reg. No. 20,609; Stephen L. Peterson, Reg. No. 26,325; John M. Romary, Reg. No. 26,331; Bruce C. Zotter, Reg. No. 27,680; Dennis P. O'Reilley, Reg. No. 27,932; Allen M. Sokal, Reg. No. 26,695; Robert D. Bajefsky, Reg. No. 25,387; Richard L. Stroup, Reg. No. 28,478; David W. Hill, Reg. No. 28,220; Thomas L. Irving, Reg. No. 28,619; Charles E. Lipsey, Reg. No. 28,165; Thomas W. Winland, Reg. No. 27,605; Basil J. Lewris, Reg. No. 28,818; Martin I. Fuchs, Reg. No. 28,508; E. Robert Yoches, Reg. No. 30,120; Barry W. Graham, Reg. No. 29,924; Susan Haberman Griffen, Reg. No. 30,907; Richard B. Racine, Reg. No. 30,415; Thomas H. Jenkins, Reg. No. 30,857; Robert E. Converse, Jr., Reg. No. 27,432; Clair X. Mullen, Jr., Reg. No. 20,348; Christopher P. Foley, Reg. No. 31,354; Roger D. Taylor, Reg. No. 28,992; John C. Paul, Reg. No. 30,413; David M. Kelly, Reg. No. 30,953; Kenneth J. Meyers, Reg. No. 25,146; Carol P. Einaudi, Reg. No. 32,220; Walter Y. Boyd, Jr., Reg. No. 31,738; Steven M. Anzalone, Reg. No. 32,095; Jean B. Fordis, Reg. No. 32,984; Barbara C. McCurdy, Reg. No. 32,120; James K. Hammond, Reg. No. 31,964; Richard V. Burgujian, Reg. No. 31,744; J. Michael Jakes, Reg. No. 32,824; Thomas W. Banks, Reg. No. 32,719; Christopher P. Isaac, Reg. No. 32,616; Bryan C. Diner, Reg. No.

32,409; M. Paul Barker, Reg. No. 32,013; Andrew Chanho Sonu, Reg. No. 33,457; David S. Forman, Reg. No. 33,694; Vincent P. Kovalick, Reg. No. 32,867; James W. Edmondson, Reg. No. 33,871; Michael R. McGurk, Reg. No. 32,045; Joann M. Neth, Reg. No. 36,363; Gerson S. Panitch, Reg. No. 33,751; Cheri M. Taylor, Reg. No. 33,216; Charles E. Van Horn, Reg. No. 40,266; Linda A. Wadler, Reg. No. 33,218; Jeffrey A. Berkowitz, Reg. No. 36,743; Michael R. Kelly, Reg. No. 33, 921; James B. Monroe, Reg. No. 33,971; Doris Johnson Hines, Reg. No. 34,629; Lori Ann Johnson, Reg. No. 34,498; R. Bruce Bower, Reg. No. 37,099; John Rissman, Reg. No. 33,764; Therese A. Hendricks, Reg. No. 30,389; Leslie I. Bookoff, Reg. No. 38,084; Michele C. Bosch, Reg. No. 40,524; Michael J. Flibbert, Reg. No. 33,234; Scott A. Herbst, Reg. No. 35,189; Leslie A. McDonell, Reg. No. 34,672; Thalia V. Warnement, Reg. No. 39,064; Ronald A. Bleeker, Reg. No. 27,773; Kathleen A. Daley, Reg. No. 36,116; C. Gregory Gramenopoulos, Reg. No. 36,532; Anthony M. Gutowski, Reg. No. 38,742; Lionel M. Lavenue; Reg. No. 46,859; and Christine E. Lehman, Reg. No. 38,535, all of **FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.**, and Marc D. Foodman, Reg. No. 34,110; Anirma R. Gupta, Reg. No. 38,275; Sean P. Lewis, Reg. No. 42,798; Bernice B. Chen, Reg. No. 42,403; Noreen A. Krall, Reg. No. 39,734; Monica D. Ward, Reg. No. 40,696; Elaine K. Lee, Reg. No. 41,936; Paul D. Sorkin, Reg. No. 39,039; Marilyn E. Glaubensklee, Reg. No. 35,521; Andrew C. Chen, Reg. No. 43,544; Arlen C. Ferrell, Reg No. 46,696; and Jeffrey L. Myers, Reg. No. 44,252, all of **Sun Microsystems, Inc.**, 4150 Network Circle, Santa Clara, CA 95054.

PATENT
Customer No. 22,852
Attorney Docket No. 06502.0515

Please send all future correspondence concerning this application to **Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.**, 1300 I Street, N.W., Washington, D.C. 20005, Telephone No. (202) 408-4000.

By:

Jeffrey L. Myers
Assistant General Counsel
Sun Microsystems, Inc.

Dated: 11/21/2003

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SEPTEMBER 18, 1997

PTAS

100521308A

LOWE, PRICE, LEBLANC & BECKER
EDWARD A. BECKER
99 CANAL CENTER PLAZA
SUITE 300
ALEXANDRIA, VA 22314

SEP 25 1997

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, NORTH TOWER BUILDING, SUITE 10C35, WASHINGTON, D.C. 20231.

RECORDATION DATE: 06/26/1997

REEL/FRAME: 8661/0966
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:
GONG, LI

DOC DATE: 06/25/1997

ASSIGNEE:
SUN MICROSYSTEMS, INC.
2550 GARCIA AVENUE
MOUNTAIN VIEW, CALIFORNIA 94043

SERIAL NUMBER: 08883636
PATENT NUMBER:

FILING DATE:
ISSUE DATE:

SHAREILL COLES, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

70976 U.S. PTO
06/26/97

08003636

71164 U.S. PTO
08/883636
06/25/97

FORM PTO-1596
1-31-92

09-03-1997

U.S. Department of Commerce
A/D

DOCKET NO.: 3070-004

100521308

To the Honorable Commissi[oner] ...ed original documents or copy thereof:

1. Name of conveying party(ies):

Li Gong

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

2. Name and address of receiving party(ies):

Name: SUN MICROSYSTEMS, INC.

Internal Address:

Street Address: 2550 Garcia Avenue

City: Mountain View State/Country CA Zip 94043

Additional name(s) & address(es) attached? ☐ Yes ☒ No

3. Nature of conveyance:

☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Other

Execution Date: June 25, 1997

MRD 6-26-97

4. Application number(s) or patent number(s):

If the document is being filed together with a new application, the execution date of the application is: June 25, 1997

A. Patent Application No(s).

B. Patent No(s).

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: LOWE, PRICE, LEBLANC & BECKER

Internal Address:

Street Address: 99 Canal Center Plaza, Suite 300

City: Alexandria State: VA ZIP: 22314

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41) $40.00

☐ Enclosed

☒ Authorized to be charged to deposit account

8. Deposit account number:

12-2237

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Edward A. Becker , 37,777 June 26, 1997

Name and Registration No. of Person Signing Signature Date

Total number of pages comprising cover sheet: 1

CMB No. 0851-0011 (exp. 4/94)

08003636
12237
06/26/1997 JWESNING 00000025
03 FC:581 40.00 CH

Express Mail EM445691616US

Attorney Docket No.: 3070-004

ASSIGNMENT

(For Execution Prior To Filing Patent Application)

PATENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, I

the undersigned, Li Gong

hereby sell, assign, and transfer to Sun Microsystems, Inc.

a corporation of Delaware, having a principal place of business at 2550 Garcia Avenue, Mountain View, California 94043-1100
("Assignee"),
and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all improvements that are disclosed in the application for the United States patent that

XX will be filed concurrently with this assignment, or

_____ was filed on _____, and assigned Serial Number _____,

and is entitled "LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS"

and in and to said application and all divisional, continuing, substitute, renewal, reissue, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all foreign countries on said improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Express Mail EM445691616US

Each Inventor: Please also list the date that you signed the accompanying DECLARATION:

Each Inventor: Please Sign and Date Below:

June 25, 1997
Date

Name: Li Gong

June 25, 1997
Date

JAB | DKS

15

PLEASE STAMP TO ACKNOWLEDGE RECEIPT OF THE FOLLOWING:

In Re Application of: Li GONG

Application No.: 08/883,636 Group Art Unit: 2123

Filed: June 26, 1997 Examiner: D. Meislahn

For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

---

1. Revocation of Power of Attorney and Grant of New Power of Attorney (4 pgs)
2. Change of Customer Number and Correspondence Address (1 pg)

Dated: December 12, 2003

Docket No.: 06502.0515-00000 (Due Date: NDD)

D.K. Stier/S. Goodlette - Mail Drop ATL

DKS ims
12.15.03

PATENT
Customer No. 22,852
Attorney Docket No. 06502.0515

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Li GONG

Application No.: 08/883,636

Filed: June 26, 1997

For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

Group Art Unit: 2123

Examiner: D. Meislahn

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

REVOCATION OF POWER OF ATTORNEY
AND GRANT OF NEW POWER OF ATTORNEY

The undersigned, a representative authorized to sign on behalf of the assignee owning all of the interest in this patent application, hereby revokes all previous powers of attorney or authorization of agent granted in this application before the date of execution hereof. The undersigned verifies that **Sun Microsystems, Inc.** is the assignee of the entire right, title, and interest in the patent application identified above by virtue of an assignment from the inventor recorded in the U.S. Patent and Trademark Office at Reel 8661, Frame 0966. The undersigned certifies that the evidentiary documents have been reviewed and to the best of the undersigned's knowledge and belief, title is in the name of **Sun Microsystems, Inc.** Attached is a photocopy of the Notice of Recordation of Assignment issued by the U.S. Patent and Trademark Office,

together with a photocopy of the recorded Assignment. The undersigned hereby grants its power of attorney to Douglas B. Henderson, Reg. No. 20,291; Ford F. Farabow, Jr., Reg. No. 20,630; Arthur S. Garrett, Reg. No. 20,338; Donald R. Dunner, Reg. No. 19,073; Brian G. Brunsvold, Reg. No. 22,593; Tipton D. Jennings, IV, Reg. No. 20,645; Jerry D. Voight, Reg. No. 23,020; Laurence R. Hefter, Reg. No. 20,827; Kenneth E. Payne, Reg. No. 23,098; Herbert H. Mintz, Reg. No. 26,691; C. Larry O'Rourke, Reg. No. 26,014; Albert J. Santorelli, Reg. No. 22,610; Michael C. Elmer, Reg. No. 25,857; Richard H. Smith, Reg. No. 20,609; Stephen L. Peterson, Reg. No. 26,325; John M. Romary, Reg. No. 26,331; Bruce C. Zotter, Reg. No. 27,680; Dennis P. O'Reilley, Reg. No. 27,932; Allen M. Sokal, Reg. No. 26,695; Robert D. Bajefsky, Reg. No. 25,387; Richard L. Stroup, Reg. No. 28,478; David W. Hill, Reg. No. 28,220; Thomas L. Irving, Reg. No. 28,619; Charles E. Lipsey, Reg. No. 28,165; Thomas W. Winland, Reg. No. 27,605; Basil J. Lewris, Reg. No. 28,818; Martin I. Fuchs, Reg. No. 28,508; E. Robert Yoches, Reg. No. 30,120; Barry W. Graham, Reg. No. 29,924; Susan Haberman Griffen, Reg. No. 30,907; Richard B. Racine, Reg. No. 30,415; Thomas H. Jenkins, Reg. No. 30,857; Robert E. Converse, Jr., Reg. No. 27,432; Clair X. Mullen, Jr., Reg. No. 20,348; Christopher P. Foley, Reg. No. 31,354; Roger D. Taylor, Reg. No. 28,992; John C. Paul, Reg. No. 30,413; David M. Kelly, Reg. No. 30,953; Kenneth J. Meyers, Reg. No. 25,146; Carol P. Einaudi, Reg. No. 32,220; Walter Y. Boyd, Jr., Reg. No. 31,738; Steven M. Anzalone, Reg. No. 32,095; Jean B. Fordis, Reg. No. 32,984; Barbara C. McCurdy, Reg. No. 32,120; James K. Hammond, Reg. No. 31,964; Richard V. Burgujian, Reg. No. 31,744; J. Michael Jakes, Reg. No. 32,824; Thomas W. Banks, Reg. No. 32,719; Christopher P. Isaac, Reg. No. 32,616; Bryan C. Diner, Reg. No.

32,409; M. Paul Barker, Reg. No. 32,013; Andrew Chanho Sonu, Reg. No. 33,457; David S. Forman, Reg. No. 33,694; Vincent P. Kovalick, Reg. No. 32,867; James W. Edmondson, Reg. No. 33,871; Michael R. McGurk, Reg. No. 32,045; Joann M. Neth, Reg. No. 36,363; Gerson S. Panitch, Reg. No. 33,751; Cheri M. Taylor, Reg. No. 33,216; Charles E. Van Horn, Reg. No. 40,266; Linda A. Wadler, Reg. No. 33,218; Jeffrey A. Berkowitz, Reg. No. 36,743; Michael R. Kelly, Reg. No. 33, 921; James B. Monroe, Reg. No. 33,971; Doris Johnson Hines, Reg. No. 34,629; Lori Ann Johnson, Reg. No. 34,498; R. Bruce Bower, Reg. No. 37,099; John Rissman, Reg. No. 33,764; Therese A. Hendricks, Reg. No. 30,389; Leslie I. Bookoff, Reg. No. 38,084; Michele C. Bosch, Reg. No. 40,524; Michael J. Flibbert, Reg. No. 33,234; Scott A. Herbst, Reg. No. 35,189; Leslie A. McDonell, Reg. No. 34,872; Thalia V. Warnement, Reg. No. 39,064; Ronald A. Bleeker, Reg. No. 27,773; Kathleen A. Daley, Reg. No. 36,116; C. Gregory Gramenopoulos, Reg. No. 36,532; Anthony M. Gutowski, Reg. No. 38,742; Lionel M. Lavenue; Reg. No. 46,859; and Christine E. Lehman, Reg. No. 38,535, all of **FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.**, and Marc D. Foodman, Reg. No. 34,110; Anirma R. Gupta, Reg. No. 38,275; Sean P. Lewis, Reg. No. 42,798; Bernice B. Chen, Reg. No. 42,403; Noreen A. Krall, Reg. No. 39,734; Monica D. Ward, Reg. No. 40,696; Elaine K. Lee, Reg. No. 41,936; Paul D. Sorkin, Reg. No. 39,039; Marilyn E. Glaubensklee, Reg. No. 35,521; Andrew C. Chen, Reg. No. 43,544; Arien C. Ferrell, Reg No. 46,696; and Jeffrey L. Myers, Reg. No. 44,252, all of **Sun Microsystems, Inc.**, 4150 Network Circle, Santa Clara, CA 95054.

PATENT
Customer No. 22,852
Attorney Docket No. 06502.0515

Please send all future correspondence concerning this application to **Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.**, 1300 I Street, N.W., Washington, D.C. 20005, Telephone No. (202) 408-4000.

By:

Jeffrey L. Myers
Assistant General Counsel
Sun Microsystems, Inc.

Dated: 11/21/2003

PATENT
Customer No. 22,852
Attorney Docket No. 06502.0515-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	)	
Li GONG	)	Group Art Unit: 2123
	)	
Application No.: 08/883,636	)	Examiner: D. Meislahn
	)	
Filed: June 26, 1997	)	
	)	
For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS	)	

Commissioner for Patents
PTO Box 1450
Alexandria, VA 22313-1450

Sir:

CHANGE OF CUSTOMER NUMBER AND CORRESPONDENCE ADDRESS

Effective immediately, please make the following changes concerning all future correspondence with respect to the above-identified patent application:

Customer No.	22,852
Attorney Docket No.	06502.0515-00
Address:	FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P. 1300 I Street, N.W. Washington, D.C. 20005-3315
Telephone:	(202) 408-4000
Facsimile	(202)-408-4400

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.

Dated: December 12, 2003

D. Kent Stier
Reg. No. 50,640

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

JC-> - SLO - DLS

PLEASE STAMP TO ACKNOWLEDGE RECEIPT OF THE FOLLOWING:

In Re Application of: Li GONG
Application No.: 08/883,636 Group Art Unit: 2123
Filed: June 26, 1997 Examiner: Douglas Meislahn
For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

---

1. Certificate of Mailing Under 37 C.F.R. § 1.8 (1 pg)
2. Status Inquiry (1 pg)

Dated: October 6, 2004
Docket No.: 06502.0515-00000 (Due Date: NDD)
D.K. Stier/S. Goodlette - Mail Drop ATL

Allowed DE 10/26-04

PATENT
Customer No. 22,852
Attorney Docket No. **06502.0515**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Li GONG

Application No.: 08/883,636

Filed: June 26, 1997

For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

Group Art Unit: 2123

Examiner: Douglas Meislahn

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Services under 37 C.F.R. § 1.8 on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

on October 6, 2004
Date

Sherleen Goodlette

Attachments:

1. Status Inquiry (1 pg)
2. Post Card to Acknowledge Receipt

PATENT
Customer No. 22,852
Attorney Docket No. 06502.0515

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	
LI GONG	Group Art Unit: 2123
Application No.: 08/883,636	Examiner: Douglas Meislahn
Filed: June 26, 1997	
For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS	Confirmation No.: [Text]

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

STATUS INQUIRY

According to our records, we have not received a communication from the Patent Office since the filing of an Appeal Brief on March 25, 2002.

In view of these circumstances, the undersigned attorney respectfully requests that the Office advise him of the status of this application as soon as possible in order to determine whether further action by the applicant is required at this time.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: October 6, 2004

By: _____
D. Kent Stier
Reg. No. 50,640
(404) 653-6559

JAB/SRDI DKS

13

PLEASE STAMP TO ACKNOWLEDGE RECEIPT OF THE FOLLOWING:

In Re Application of: Li GONG
Application No.: 08/883,636 Group Art Unit: 2137
Filed: June 26, 1997 Examiner: Paul E. Callahan
For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

1. Request for File Search with Exhibits A-E (70 pgs total, including Exhibit tabs)

Dated: November 22, 2004
Docket No.: 06502.0515-00000
D.K Stier/S. Goodlette - Mail Drop ATL

(Due Date: NDD)

DKFax 11/23/04 5P S

PATENT
Customer No. 22,852
Attorney Docket No. **06502.0515**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	)	
Li GONG	)	Group Art Unit: 2137
	)	
Application No.: 08/883,636	)	Examiner: Paul E. Callahan
	)	
Filed: June 26, 1997	)	
	)	
For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS	)	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

REQUEST FOR FILE SEARCH

Applicant understands that certain papers from the PTO file are now missing and that subsequent efforts to find such papers after the relocation of PTO offices have failed to turn up the missing papers. In accordance with instructions received by Supervisor Andrew Caldwell on November 10, 2004, Applicant hereby submits a chronology of papers filed since the mailing of the Final Office Action on September 24, 2001, along with stamped copies of the postcards.

1. In response to the Final Office Action mailed September 24, 2001, Applicant filed a Notice of Appeal along with a Petition for Extension of Time for one month on January 24, 2002. (Exhibit A.)
2. Following the Notice of Appeal, Applicants submitted an Appeal Brief on March 25, 2002. (Exhibit B.)

3. A Change of Customer Number and Correspondence Address and Revocation of Power of Attorney and Grant of New Power of Attorney were filed on November 21, 2003. (Exhibit C.)

4. A duplicate Change of Customer Number and Correspondence Address and Revocation of Power of Attorney and Grant of New Power of Attorney were filed on December 12, 2003. (Exhibit D.)

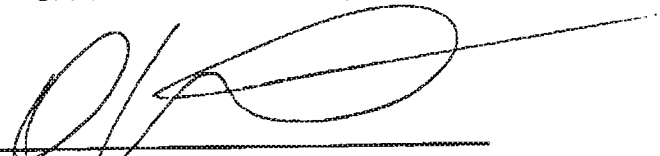
5. Finally, Applicant filed a Status Inquiry on October 6, 2004. (Exhibit E.)

Applicant respectfully requests that these papers be entered into the file and that the Examiner issue a response to the Appeal Brief filed March 25, 2002.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.



Dated: November 22, 2004

By: _____
D. Kent Stier
Reg. No. 50,640
(404) 653-6559

Applicant: LI GONG Docket No. 50435-015

Title/Mark: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS Serial/Reg./Patent No. 08/883,636

Date Sent: 1/24/02 ☒ Hand Carried ☐ Fax ☐ Electronic ☐ Cert. of Mailing ☐ Express Mail No. _____

☐ Transmittal Letter

New Patent App ☐ Utility ☐ Design ☐ Cont. ☐ CIP ☐ Div. ☐ PCT ☐ CPA ☐ RCE ☐ Prov

☐ Other: _____

_____ pages of Specification

_____ pages of Claims

_____ pages of Abstract

_____ pages of Formal/Informal Drawings

☐ Small Entity ☐ Large Entity

☐ Declaration/Power of Attorney

☐ Recordation of Assignment/Security Agreement

☐ Information Disclosure Statement

_____ Form PTO 1449

_____ copies of cited references

☐ Preliminary Amendment

☐ Response to Missing Parts Notice

☐ Resp. to Notice to Correct App. Papers

☐ Certified Copy of Priority Doc.

☐ Claim for Convention Priority

☐ Response/Amendment to Office Action of _____

☒ Request for 1-day/month Extension of Time

☐ Letter submitting _____ pages of drawings

☐ Req. for Approval of Drawing Amendments

☐ Req. for Oral Hearing

☒ Not. of Appeal ☐ Appeal Brief ☐ Reply Brief

☐ Rule 312 Amendment/Letter

☐ Req. for Acknowledgement of Cited Art

☐ Issue Fee

☐ Publication Fee

☐ Req. for Certificate of Correction

☐ Maintenance Fee for _____ years after grant

☐ Fee Address Indication Form _____

☐ Terminal Disclaimer

☐ Petition to Commissioner

☐ Status Inquiry

☐ Other

OIPE JC17 JAN 24 2002 PATENT & TRADEMARK OFFICE

Check for $		☒ Charge Deposit Acct. 500417 $	110 KAP	Atty Init.	DLS	Tkpr. #	4238	Secy. or PL:	KA. Pollard

CMS Descrip.: (20) $110 (9) $320

THE PATENT AND TRADEMARK OFFICE DATE STAMPED HEREON IS ACKNOWLEDGEMENT THAT THE ITEMS, CHECKED ABOVE, WERE RECEIVED BY THE PTO ON THE DATE STAMPED.

Docket No.: 50435-015 (P2145) PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of

Li GONG

Serial No.: 08/883,636 Group Art Unit: 2132

Filed: June 26, 1997 Examiner: D. Meislahn

For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

NOTICE OF APPEAL
FROM THE PRIMARY EXAMINER
TO THE BOARD OF APPEALS

Commissioner for Patents
Washington, DC 20231

Sir:

Applicants hereby appeals to the Board of Appeals from the decision dated September 24, 2001 of the Primary Examiner finally rejecting claims 1-8, 13-20, 22-24, 26-32, 34, and 35.

Appeal Fee: $320.00

☐ Not required (fee paid in prior appeal in this application).

☒ Charge to Deposit Account No. 500417.

Respectfully submitted,

MCDERMOTT, WILL & EMERY

David L. Stewart
Registration No. 37,578

600 13th Street, N.W.
Washington, DC 20005-3096
(202) 756-8000 DLS:kap
Date: January 24, 2002
Facsimile: (202) 756-8087

Docket No.: 50435-015 (P2145)

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Li GONG

Serial No.: 08/883,636

Filed: June 26, 1997

Group Art Unit: 2132

Examiner: D. Meislahn

For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

PETITION FOR EXTENSION OF TIME

Commissioner for Patents
Washington, DC 20231

Sir:

It is respectfully requested that the time for response to the Office Action dated September 24, 2001, now due to expire December 24, 2001, be extended for one (1) month and set to expire on January 24, 2002.

Please charge the extension fee of $110.00 to Deposit Account No. 500417. Please charge any additional fees or credit any overpayment to Deposit Account No. 500417.

Respectfully submitted,

MCDERMOTT, WILL & EMERY

David L. Stewart
Registration No. 37,578

600 13th Street, N.W.
Washington, DC 20005-3096
(202) 756-8000 DLS:kap
Date: January 24, 2002
Facsimile: (202) 756-8087

Applicant: LI GONG

Docket No. 50435-015

Title/Mark: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

Serial/Reg./Patent No. 08/883,636

Date Sent: 3/25/02

☒ Hand Carried ☐ Fax ☐ Electronic ☐ Cert. of Mailing ☐ Express Mail No. _____

☒ Transmittal Letter

New Patent App ☐ Utility ☐ Design ☐ Cont. ☐ CIP ☐ Div. ☐ PCT ☐ CPA ☐ RCE ☐ Prov

☐ Other: _____

_____ pages of Specification

_____ pages of Claims

_____ pages of Abstract

_____ pages of Formal/Informal Drawings

☐ Small Entity ☐ Large Entity

☐ Declaration/Power of Attorney

☐ Recordation of Assignment/Security Agreement

☐ Information Disclosure Statement

_____ Form PTO 1449

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☐ Preliminary Amendment

☐ Response to Missing Parts Notice

☐ Resp. to Notice to Correct App. Papers

☐ Certified Copy of Priority Doc.

☐ Claim for Convention Priority

☐ Response/Amendment to Office Action of _____

☐ Request for _____ month Extension of Time

OIPE
MAR 25 2002
PATENT & TRADEMARK OFFICE

☐ Letter submitting _____ pages of drawings

☐ Req. for Approval of Drawing Amendments

☐ Req. for Oral Hearing

☐ Not. of Appeal ☒ Appeal Brief ☐ Reply Brief (TRIPLICATE)

☐ Rule 312 Amendment/Letter

☐ Req. for Acknowledgement of Cited Art

☐ Issue Fee

☐ Publication Fee

☐ Req. for Certificate of Correction

☐ Maintenance Fee for _____ years after grant

☐ Fee Address Indication Form _____

☐ Terminal Disclaimer

☐ Petition to Commissioner

☐ Status Inquiry

☐ Other

Check for $		☒ Charge Deposit Acct: 500417 $	320	Atty Init.	WLS	Tkpr. #	5623	Secy. or PL:	CA. Collins

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THE PATENT AND TRADEMARK OFFICE DATE STAMPED HEREON IS ACKNOWLEDGEMENT THAT THE ITEMS, CHECKED ABOVE, WERE RECEIVED BY THE PTO ON THE DATE STAMPED.

Docket No.: 50435-015

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of

Li GONG

Serial No.: 08/883,636

Filed: June 26, 1997

Group Art Unit: 2132

Examiner: D. Meislahn

For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

TRANSMITTAL OF APPEAL BRIEF

Commissioner for Patents
Washington, DC 20231

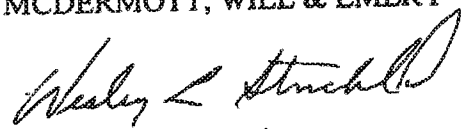
Sir:

Submitted herewith in triplicate is Appellant(s) Appeal Brief in support of the Notice of Appeal filed January 24, 2002. Please charge the Appeal Brief fee of $320.00 to Deposit Account 500417.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

MCDERMOTT, WILL & EMERY



Wesley L. Strickland
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600 13th Street, N.W.
Washington, DC 20005-3096
(202)756-8000 WLS:cac
Facsimile: (202)756-8087
Date: March 25, 2002

Docket No.: 50435-015 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of	:	
Li GONG	:	
Serial No.: 08/883,636	:	Group Art Unit: 2132
Filed: June 26, 1997	:	Examiner: D. Meislahn

For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

APPEAL BRIEF

Commissioner for Patents
Washington, DC 20231

Sir:

This Brief is submitted pursuant to the Notice of Appeal submitted January 24, 2002 regarding the final rejection of claims 1-8, 13-20, 22-24, 26-32, 34 and 35 dated September 24, 2001.

REAL PARTY IN INTEREST

Sun Microsystems, Inc. is the real party in interest in the pending application.

RELATED APPEALS AND INTERFERENCES

No appeal or interference is known to Appellants that will affect or be directly affected by or have a bearing on the Board's decision in the pending appeal. There is a Petition For Review of A Director's Decision filed July 19, 2001 that is still pending

resolution.

STATUS OF CLAIMS

Claims 1-8, 13-20, 22-24, 26-32, 34 and 35 remain pending. All the pending claims stand under final rejection, from which rejection, this appeal is taken. Claim 29 is not specifically addressed in the detailed treatment of the claims in the Final Office Action; however, the Office Action Summary identifies claim 29 as rejected and Appellants have prepared this Appeal Brief under the assumption that the Examiner's actual intentions with regard to claim 29 are reflected by the Summary Sheet.

STATUS OF AMENDMENTS

None of the claims have been Amended after the Final Office Action dated September 24, 2001.

SUMMARY OF INVENTION

The present invention provides layer-independent secure communications in a multi-layered communication network. In general, a communication channel or connection is first established between a first multi-layered network node and a second multi-layered network node. Then, a first stream is established between a first process, executing on the first node, and the communication channel. A second stream is then established between a second process, executing on the second node, and the communication channel. As the first process writes data to the first stream, the data is encrypted and when the encrypted data is read out of the second stream by the second

process, the data is decrypted.

There are several benefits achieved by the claimed invention. These are set forth, for example, on pages 2 and 3 of the specification. When the amount of information included in session is small, for example, when a session contains only a single message, then the overhead contributable to set up negotiation can adversely affect communications performance. This negative is overcome by the claimed invention. Further, some communication architectures do not include a session layer, which requires that a session layer be added to support session type security, further degrading performance. Layer specific encryption can avoid the overhead penalty associated with set up negotiation, but it has additional limitations. First, encryption and decryption must occur at the same corresponding layer on both the transmitting and receiving network nodes. The traditional techniques such as the simple key management for internet protocols (SKIP) and secure sockets layer (SSL) each require layer specific function calls. The result is that one application implementing security according to SKIP cannot interact with another application implementing security according to SSL. In addition, layer-specific encryption could be difficult to employ an object-oriented environments because of the inherent level of abstraction required. For example, some layers operate of databytes, which often is a much lower level than objects in an object oriented environment.

ISSUES

The following issues are presented by this Appeal, whether the Examiner erred in:

a) rejecting claims 1, 5, 13, 17, 20, 24, 28, and 32 under 35 USC §102(e) for anticipation by *Helwig et al.* (US Patent No. 5,793,749);

b) rejecting claims 1, 5, 13, 17, 20, 24, 28, and 32 under 35 USC §102(b) for anticipation by *Schneier* (Applied Cryptography); and

c) rejecting claims 2, 3, 4, 6, 7, 8, 14, 15, 16, 18, 19, 22, 23, 26, 27, 30, 31, 34 and 35 under 35 USC §103 as unpatentable over either *Helwig et al.* or *Schneier*.

GROUPING OF CLAIMS

Each claim is argued separately and each claim stands or falls independently of any other.

ARGUMENT

A. The Examiner erred in rejecting claims 1, 5, 13, 17, 20, 24, 28 and 32 as anticipated by Helwig et al.

The factual determination that *Helwig et al.* identically disclose the claimed inventions recited in claims 1, 5, 13, 17, 20, 24, 28, and 32 under 35 USC §102(e) is erroneous given the differences between the claimed inventions and the system of *Helwig et al.* The portion of the specification of *Helwig et al.* relied upon by the Examiner refers to and describes Figure 3 and, more particularly, to a "pre-transmit process 68" within Figure 3. The whole purpose of that particular branch coming off of 66-Y (in which the pre-transmit process 68 is included) is to record a test message in memory.

The Examiner's rejection is predicated upon an inaccurate factual determination. The factual determination of lack of novelty under 35 USC §102 requires the identical disclosure in a single reference of each element of a claimed invention such that the

identically claimed invention is placed in possession of one having ordinary skill in the art. **Helfix, Ltd. v. Loc-Bloc, Ltd. 54 USPQ2d 1299 (Fed. Cir. 2000); TD Corporation v. Lydall, Inc. 159 F.3d. 534, 48 USPQ2d 1321 (Fed. Cir. 1998); Electro Medical Systems S.A. v. Coopoer Life Science, Inc., 34 F.3d. 1048, 32 USPQ2d 1017 (Fed. Cir. 1994).** There are significant differences between the invention recited in claims 1, 5, 13, 17, 20, 24, 28, and 32 and *Helwig et al.*'s system that contradict the factual determination that *Helwig et al.* identically describe the claimed invention within the meaning of 35 USC §102.

With respect to claim 1, there is no teaching or suggestion within *Helwig et al.* of:

a) establishing a communications channel in which there is then established "a first stream between the first process and the communication channel"; and

b) "establishing a second stream between the second process and the communication channel"; and

c) encrypting, independent of a transport protocol, data in response to the data being written to the first stream; and

d) decrypting, independent of the transport protocol, the encrypted data in response to the encrypted data being read form the second stream.

In addition to the features identified above with respect to claim 1, claim 5 recites a computer-readable medium, carrying code that when executed performs various functions. This requirement of claim 5 is not disclosed by *Helwig et al.*

In addition to the features identified above with respect to claim 1, claim 13 recites a computer data signal embodied on a carrier wave, representing instructions that when executed performs various functions. This requirement of claim 13 is not disclosed by *Helwig et al.*

With respect to claim 17, there is no teaching or suggestion within *Helwig et al.* of:

a) establishing a stream between a process and a communication channel; and

b) encrypting data independent of communication protocol layers in response to data being written to the stream.

With respect to claim 20, there is no teaching or suggestion in *Helwig et al.* of:

a) establishing a first stream from a first process to the communication channel; and

b) establishing a second stream from the communication channel to a second process.

In addition to the features identified above with respect to claim 20, claim 24 recites a computer-readable medium, carrying code that when executed performs various functions. This requirement of claim 24 is not disclosed by *Helwig et al.*

In addition to the features identified above with respect to claim 20, claim 28 recites a communications network performing the recited method steps. This requirement of claim 28 is not disclosed by *Helwig et al.*

In addition to the features identified above with respect to claim 20, claim 32 recites a computer data signal embodied on a carrier wave, representing instructions that when executed performs various functions. This requirement of claim 32 is not disclosed by *Helwig et al.*

The above argued differences between the claimed inventions and the system of *Helwig et al.* undermine the factual determination that *Helwig et al.* identically describe the claimed inventions within the meaning of 35 USC §102. **Kolster Speedsteel AB v. Crucible, Inc., 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986). Thus, the Examiner has failed to establish a prima facie case of anticipation.** Appellants, therefore, respectfully submit that each the imposed rejection of claims 1, 5, 13, 17, 20, 24, 28 and

32 under 35 USC §102 for lack of novelty, as evidenced by *Helwig et al.*, are independently factually erroneous.

B. The Examiner erred in rejecting claims 1, 5, 13, 17, 20, 24, 28 and 32 as anticipated by Schneier.

The Examiner erred in rejecting claims 1, 5, 13, 17, 20, 24, 28, and 32 under 35 USC §102(b) as anticipated by *Schneier* (Applied Cryptography). The factual determination that *Schneier* identically disclose the claimed inventions recited in claims 1, 5, 13, 17, 20, 24, 28, and 32 under 35 USC §102(b) is erroneous given the differences between the claimed inventions and the system of *Schneier*. *Schneier* describes an XOR encryption process, known as a stream cipher, with its corresponding decryption process. With respect to all the claims, this discussion of a ciphering model by *Schneier* does not disclose (or even suggest) establishment of a communications channel followed by establishing a stream between a process and the channel and another stream from the channel to an output process. Thus, the Examiner has failed to establish a *prima facie* case of anticipation.

With respect to claim 1, there is no teaching or suggestion within *Schneier* of:

a) establishing a communications channel in which there is then established "a first stream between the first process and the communication channel"; and

b) "establishing a second stream between the second process and the communication channel"; and

c) encrypting, independent of a transport protocol, data in response to the data being written to the first stream; and

d) decrypting, independent of the transport protocol, the encrypted data in

response to the encrypted data being read form the second stream.

In addition to the features identified above with respect to claim 1, claim 5 recites a computer-readable medium, carrying code that when executed performs various functions. This requirement of claim 5 is not disclosed by *Schneier*.

In addition to the features identified above with respect to claim 1, claim 13 recites a computer data signal embodied on a carrier wave, representing instructions that when executed performs various functions. This requirement of claim 13 is not disclosed by *Schneier*

With respect to claim 17, there is no teaching or suggestion within *Schneier* of:

a) establishing a stream between a process and a communication channel; and

b) encrypting data independent of communication protocol layers in response to data being written to the stream.

With respect to claim 20, there is no teaching or suggestion in *Schneier* of:

a) establishing a first stream from a first process to the communication channel; and

b) establishing a second stream from the communication channel to a second process.

In addition to the features identified above with respect to claim 20, claim 24 recites a computer-readable medium, carrying code that when executed performs various functions. This requirement of claim 24 is not disclosed by *Schneier*.

In addition to the features identified above with respect to claim 20, claim 28 recites a communications network performing the recited method steps. This requirement of claim 28 is not disclosed by *Schneier*

In addition to the features identified above with respect to claim 20, claim 32

recites a computer data signal embodied on a carrier wave, representing instructions that when executed performs various functions. This requirement of claim 32 is not disclosed by *Schneier*

The above argued differences between the claimed inventions and the system of *Schneier* undermine the factual determination that *Schneier* identically describe the claimed inventions within the meaning of 35 USC §102. **Kolster Speedsteel AB v. Crucible, Inc., 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986).**

Thus, the Examiner has failed to establish a prima facie case of anticipation. Appellants, therefore, respectfully submit that each the imposed rejection of claims 1, 5, 13, 17, 20, 24, 28 and 32 under 35 USC §102 for lack of novelty, as evidenced by *Schneier*, are independently factually erroneous.

C. The factual determination that either *Helwig et al.* or *Schneier* identically disclose (or even suggest) a "stream" as meant and recited in <u>any</u> of the present claims is erroneous when the appropriate disclosures are considered as a whole and interpreted with internal consistency and from the perspective of one of ordinary skill.

Neither *Helwig et al.* nor *Schneier* teach or suggest the use of a "stream" as that term was used or applied in the specification and claims of the present application.

<u>Helwig et al.:</u>

Helwig et al. does refer to a "data stream" However, the use of similar <u>sounding</u> terms is not necessarily the same as using terms that <u>mean</u> the same thing. Therefore, the mere use of similar sounding terms does not end the inquiry into whether a reference can be considered as identically disclosing the same subject matter. The meaning of "data streams" in *Helwig et al.* is interpreted in the context of that specification and within

Helwig et al. the "data streams" are a series of bits output from a vocoder and are used as a description of the data's particular physical format.

In contrast to the interpretation as meant by *Helwig et al.*, the present claim term "stream" is to be interpreted in light of the claim language, the specification, and the prosecution history; and the interpretation proceeds from the vantage point of one skilled in the art. **Atlantic Thermoplastics Co., Inc. v. Faytex Corp., 970 F.2d 834, 23 USPQ2d 1481 (Fed. Cir. 1992); Haynes International, Inc. v. Jessop Steel Co., 8 F.3d 1573, 28 USPQ2d 1652 (Fed. Cir. 1993).** Ultimately, claim language is construed according to the standard of what those words would have meant to one skilled in the art as of the application date. **Weiner v. NEC Electronics, Inc., 102 F.3d 534, 41 USPQ2d 1023 (Fed. Cir. 1996).**

It is important to interpret the phrase "stream" within the claims in a way which is consistent with the specification, rather than at odds to it. For example, one would obviously not interpret "stream" in the context of this application as referring to a flow of water down a mountain side. On page 4 of the specification, beginning line 9, the application introduces a "stream" as an abstraction which refers to the transfer or "flow" of data, in any format, from a single source, to a single destination. Let us consider the following example in the context of Figure 1 of the application. Let us assume that process 108 is an MPEG2 transmission process. It may generate a plurality of "streams", such as a left channel audio, a right channel audio, a video, a closed-captioned stream, and a control channel stream. When the MPEG2 transmission process 108 desires to send information to process 110, which, in this example, is an MPEG2 display process, a communications channel would be set up between node 108 and node 104 then, the individual streams

would be applied to the communications channel for transmission to the node 104. Note that the communication channel from the process 108 goes through all of the layers shown in Figure 1 of each protocol stack, namely the application layer, presentation layer, session layer, transport layer, network layer, datalink layer, and physical layer before going across the transmission medium to the other node and then passing through the same layers as an inverse order. It is known in the art to apply layer specific encryption at any of the layers of the OSI reference model shown in Figure 1.

If the invention of claim 1 were applied to a communication system which corresponded to the OSI reference model, first, communications would be established between the first network node and the second network node. The request for connection would come from the process 108 to the application layer and appropriately process through the layers until a connection is set up to node 104. Once that is done, a first stream, say, for example, an MPEG control channel stream is established between the first process 108 and the communications channel which begins at application layer 118. At the other end, a stream would be established between the application layer 128 of node 104 and the process 110 for the MPEG control channel data. As set forth in limitation d) of claim 1, in response to data being written to the first stream [from process 108] the data is encrypted to generate encrypted data which is then applied to the application layer 118. The encryption is performed independently of any of the layers of the communications protocol stack. Note that in the example of MPEG2, encryption can be applied selectively to the streams rather than to everything that is transmitted over the communications channel. In OSI reference model, the layer normally responsible for encryption is the presentation layer while the application layer, 118, handles the interface between the

software involved with the process 108 and the communications channel.

One limitation of claim 1 states "in response to the encrypted data being read from the second stream, decrypting the encrypted data to recover the decrypted data."

As used within the present application, "stream" is an abstraction, which has properties beyond merely being a string of binary digits. "Streams", as would be understood by a skilled software practitioner, are defined in object oriented languages such as Java and have a whole set of associated properties which distinguish them from a flow of water down the mountain side and which also distinguish them from simply an arbitrary string of binary 1's and 0's.

Schneier:

With regards to *Schneier*, the referenced portion (Section 9.4) of his book **Applied Cryptography** describes a cipher model known as "Stream Ciphers". In particular, the Examiner relies of Figure 9.6 as anticipating the present claims. So, similar to Helwig et. al., *Schneier* also uses a similar sounding term -- "stream cipher"; but, once again, the inquiry is not whether similar sounding terms are being used but whether the terms being used convey an identical disclosure of subject matter as required under 35 USC §102.

The following information from **Ritter's Crypto Glossary and Dictionary of Technical Cryptography** (Current Edition: 2002 Feb 18, which can be found at, for example, http://www.ciphersbyritter.com/GLOSSARY.HTM)provides a helpful context for evaluating the disclosure of *Schneier*.

The glossary has a heading of "Cipher Taxonomy" which includes the following

definitions:

> **BLOCK CIPHER**
> A block cipher requires the accumulation of some amount of data or multiple data elements for ciphering to complete. (Sometimes stream ciphers accumulate data for convenience, as in cylinder ciphers, which nevertheless logically cipher each character independently.)
>
> **STREAM CIPHER**
> A stream cipher does not need to accumulate some amount of data or multiple data elements for ciphering to complete. (Since we define only two main "types" of cipher, a stream cipher is the opposite of a block cipher and vise versa. It is extremely important that the definitions for block and stream ciphering enclose the universe of all possible ciphers.) A stream cipher has the ability to transform individual elements one-by-one. The actual transformation usually is a block transformation, and may be repeated with the same or different keying.

A later heading in this Glossary that relates to a "Stream Cipher" further agrees with the specific XOR implementation of *Schneier* by describing a stream cipher as:

> a cipher which directly handles messages of arbitrary size by ciphering individual data elements, such as bits or bytes or characters. Conventionally, some form of keyed random number generator is used to produce a confusion sequence or running key. That sequence is then combined with plaintext data by exclusive-OR to produce ciphertext. Enciphering individual characters allows ciphering to begin immediately, avoiding the need to accumulate a full block of data before ciphering, as is necessary in a conventional block cipher. But note that a stream cipher can be seen as an operating mode, a "streaming" of a tiny block transformation. Stream ciphers can be called "combiner-style" ciphers. Also see: a cipher taxonomy.

Appellants urge that the high-level discussion of a stream ciphering model by *Schneier* does not provide the requisite identical disclosure of the "stream" abstraction as intended and used in the present specification and claims.

Thus, the Examiner has failed to establish a *prima facie* case of anticipation of the

claims when the claims, *Schneier* and *Helwig et al.* are all properly interpreted, because such an interpretation reveals that neither of the references identically disclose the "stream" recited in the claims.

D. The Examiner erred in rejecting claims 3, 4, 7, 8, 15, 16, 18, 19, 22, 23, 26, 27, 29, 30, 31, 34, and 35 as unpatentable over either Helwig et al. or Schneier.

Claims 3, 4, 7, 8, 15, 16, 18, 19, 22, 23, 26, 27 [and 29], 30, 31, 34 and 35 are not obvious over either *Helwig et al.* or *Schneier* because neither of these references teach or other wise suggest a Java-based stream or communication channel and, thus, the Examiner did not discharge the initial burden of establishing a prima facie basis to deny patentability to the claimed invention under 35 USC §103.

In applying these references to the claims, the Examiner states:

> "They do not say that the communication channels or data streams are Java-based. Official notice is taken that it is old and well-known that Java is intended for networked/distributed environments and enables the construction of virus-free, tamper-free systems. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to base the systems of *Schneier* or *Helwig et al.*, all of which are networked or distributed environments, on Java, as is known in the art. This would enable the implementation of a virus-free, tamper-free system."

The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention under any statutory provision always rests upon the Examiner. **In re Mayne, 41 USPQ2d 1451 (Fed .Cir. 1997); In re Deuel, 34 USPQ2d 1210 (Fed. Cir. 1995); In re Bell, 26 USPQ2d 1529 (Fed. Cir. 1993); In re Oetiker, 24 USPQ2d 1443 (Fed. Cir. 1992).** In rejecting a claim under 35 U.S.C. § 103, the Examiner is required to provide a factual basis to support the obviousness conclusion. **In re Warner, 154 USPQ 173 (CCPA 1967); In re Lunsford, 148 USPQ 721 (CCPA 1966); In re Freed,**

165 USPQ 570 (CCPA 1970). The Examiner is required to show that all the claim limitations are taught or suggested by the references along with some motivation to combine the teachings of the references. **In re Royka, 180 USPQ 580 (CCPA 1974); In re Wilson, 165 USPQ 494 (CCPA 1970).**

In addition, it has been repeatedly held by the Court of Appeals for the Federal Circuit that in order to establish the requisite realistic motivation, the Examiner must make "clear and particular" factual findings as to a specific understanding or specific technological principle which would have realistically impelled one having ordinary skill in the art to modify a particular prior art device (the device of either *Schneier* or *Helwig et al.*) to arrive at the claimed invention based upon facts--not generalizations. **Ruiz v. A.B. Chance Co., 234 F.2d 654, 57 USPQ2d 1161 (Fed. Cir. 2000); Ecolochem Inc. v. Southern California Edison, Co. 227 F.3d 361, 56 USPQ2d 1065 (Fed. Cir. 2000); In re Kotzab, 217 F.3d 1365, 55 USPQ 1313 (Fed. Cir. 2000); In re Dembiczak, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999).** Moreover, the Examiner is required to explain **why** one having ordinary skill in the art would have been realistically led to modify the devices of either *Schneier* or *Helwig et al.* to arrive at the claimed invention. **Ecolochem Inc. v. Southern California Edison, Co. supra.; In re Rouffet, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir. 1998).** Significantly, the requisite motivation must be undertaken with a reasonably expectation of successfully achieving the objective of either *Schneier* or *Helwig et al.* **In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).**

Appellant would heavily rely upon the legal tenet that regardless of what the Examiner perceives as the source of motivation in the prior art, the Examiner must

provide "a convincing discussion of the specific sources of the motivation to combine the prior art references...". **Ecolochem Inc. v. Southern California Edison, Co. 227 F.3d 1361, 56 USPQ2d 1065 (Fed. Cir. 2000).** This basis legal tenet was recently enforced by the Court of Appeals for the Federal Circuit in **In re Lee ____F.3d ____, 61USPQ2d 1430 (Fed. Cir. 2002)**, wherein the Court emphasized that the motivational element is a factual question which requires substantial evidence--not conclusory statements.

Appellants continue to insist that the range and content of the Examiner's Official Notice is factually and legally erroneous. But, assuming for the sake of argument that the Official Notice was effective for what the Examiner asserts, Appellants urge that the requirements of 35 USC §103 have still not been satisfied. The Examiner has failed to provide a cogent explanation of why one of ordinary skill would have been motivated to modify the message storing device of to *Helwig et al.* to add, for example, the complexity, additional hardware and cost of Java processing capability in the first place. Additionally, the Examiner has failed to provide a cogent explanation of why one of ordinary skill would have been motivated to augment the general discussion of enciphering and deciphering models by *Schneier* to specifically involve Java and Java streams. The Examiner states that Java "enables construction of virus-free, tamper-free systems". This type of generalization about technology is exactly the danger of which the courts have repeatedly warned against and the type of reasoning which the courts have repeatedly found erroneous. The establishment of a prima facie case of obviousness must factually explain why one of ordinary skill would have been motivated to combine specific teachings, in a specific way in order to arrive at a specific invention.

The Examiner's Official Notice (even if true) that Java might have use in tamper-free systems, is not a factual explanation of why a skilled artisan would have found it obvious to modify the specific systems taught by *Schneier* or *Helwig et al.* with some reasonable expectation of success.

If the Examiner were to implement the *Schneier* or *Helwig et al.* systems, using Java streams and Java secure channels, it would still not result in the claimed invention. In fact, if the phrases "communication channel" and "stream" as used in each of the references are interpreted to be a "Java stream" and "Java secure communication channel," the interpretation of the references as applied to the independent claims would have to change so dramatically as to show their inapplicability under 35 USC §102.

Appellants urge that the Examiner committed clear factual and legal errors. Specifically, without the benefit of any facts, the Examiner expanded the teachings of the applied references to whatever level he needed in order to combine them, relying only upon his "official notice" ability, in complete violation of **Ex parte Stern, 13 USPQ2d 1379 (BPAI 1987).**

Appellants recognize that the specific limitations recited in the different "families" of dependent claims appear to be very similar. However, as the patentability of each of the independent claims was separately argued, Appellants wish to stress that the dependent claims also stand or fall individually and are not being grouped together.

With respect to claim 3, the claim recites a first Java stream, a second Java stream, and a Java secure channel. These requirements of claim 3 are not disclosed or suggested by either *Helwig et al.* or *Schneier.*

With respect to claim 4, the claim recites a first Java stream, a second Java stream,

a third Java stream, and a Java secure channel. These requirements of claim 4 are not disclosed or suggested by either *Helwig et al.* or *Schneier*.

With respect to claim 7, the claim recites a first Java stream, a second Java stream, and a Java secure channel. These requirements of claim 7 are not disclosed or suggested by either *Helwig et al.* or *Schneier*.

With respect to claim 8, the claim recites a first Java stream, a second Java stream, a third Java stream, and a Java secure channel. These requirements of claim 8 are not disclosed or suggested by either *Helwig et al.* or *Schneier*.

With respect to claim 15, the claim recites a first Java stream, a second Java stream, and a Java secure channel. These requirements of claim 15 are not disclosed or suggested by either *Helwig et al.* or *Schneier*.

With respect to claim 16, the claim recites a first Java stream, a second Java stream, a third Java stream, and a Java secure channel. These requirements of claim 16 are not disclosed or suggested by either *Helwig et al.* or *Schneier*.

With respect to claim 18, the claim recites a first Java stream and a Java secure channel. These requirements of claim 18 are not disclosed or suggested by either *Helwig et al.* or *Schneier*.

With respect to claim 19, the claim recites a first Java stream, a second Java stream, and a Java secure channel. These requirements of claim 19 are not disclosed or suggested by either *Helwig et al.* or *Schneier*.

With respect to claim 22, the claim recites a first Java stream, a second Java stream, and a Java secure channel. These requirements of claim 22 are not disclosed or suggested by either *Helwig et al.* or *Schneier*.

With respect to claim 23, the claim recites a first Java stream, a second Java stream, a third Java stream, and a Java secure channel. These requirements of claim 23 are not disclosed or suggested by either *Helwig et al.* or *Schneier.*

With respect to claim 26, the claim recites a first Java stream, a second Java stream, and a Java secure channel. These requirements of claim 26 are not disclosedor suggested by either *Helwig et al.* or *Schneier.*

With respect to claim 27, the claim recites a first Java stream, a second Java stream, a third Java stream, and a Java secure channel. These requirements of claim 27 are not disclosed or suggested by either *Helwig et al.* or *Schneier.*

With respect to claim 29, the claim recites that the encryption of the first stream and the decryption of the second stream is specific to a communication protocol layer. This requirement of claim 29 is not disclosed or suggested by either *Helwig et al.* or *Schneier.*

With respect to claim 30, the claim recites a first Java stream, a second Java stream, and a Java secure channel. These requirements of claim 30 are not disclosed or suggested by either *Helwig et al.* or *Schneier.*

With respect to claim 31, the claim recites a first Java stream, a second Java stream, a third Java stream, and a Java secure channel. These requirements of claim 31 are not disclosed or suggested by either *Helwig et al.* or *Schneier.*

With respect to claim 34, the claim recites a first Java stream, a second Java stream, and a Java secure channel. These requirements of claim 34 are not disclosed or suggested by either *Helwig et al.* or *Schneier.*

With respect to claim 35, the claim recites a first Java stream, a second Java stream, a third Java stream, and a Java secure channel. These requirements of claim 35 are not

disclosed or suggested by either *Helwig et al.* or *Schneier.*

The above argued differences between the claimed inventions and the system of *Helwig et al.* and *Schneier* undermine the factual determination that *Helwig et al.* and *Schneier* provide a prima facie case of obviousness within the meaning of 35 USC §103 of claims 3, 4, 7, 8, 15, 16, 18, 19, 22, 23, 26, 27, 30, 31, 34 and 35

E. The Examiner erred in rejecting claims 2, 6, and 14 as unpatentable over either Helwig et al. or Schneier.

Claims 2, 6, and 14 are not obvious over either *Helwig et al.* or *Schneier* because neither of these references teach or other wise suggest performing communication protocol layer specific encryption or decryption of the data and, thus, the Examiner did not discharge the initial burden of establishing a prima facie basis to deny patentability to the claimed invention under 35 USC §103.

In rejecting these claims, the Examiner asserts that if some encryption is good, then more encryption is better. Appellants admit that some liberty was taken with paraphrasing the Examiner's comments; however, if read carefully, his assertions really do not say anything more than the above generalization. As stated previously, the Examiner must make "clear and particular" factual findings as to a specific understanding or specific technological principle which would have realistically impelled one having ordinary skill in the art to modify a particular prior art device (the device of either *Schneier* or *Helwig et al.*) to arrive at the claimed invention based upon facts--not generalizations.

Each of claims 2, 6 and 14 require more than simply a second encryption step. The claims recite that the encryption being performed be "a communication protocol

layer specific encryption." The Examiner has not explained why a skilled artisan, with either *Schneier* or *Helwig et al.* in hand, would have found it obvious to add to the respective systems a communication layer protocol specific encryption. *Schneier* does not disclose a stream cipher in the context of networked nodes communicating over a channel and *Helwig et al.* is concerned about storing a message, not with secure communications. Additionally, *Helwig et al.* discusses the need for responsiveness in their system and one skilled in the art would not have adversely impacted performance in such a system by adding another layer of encryption processing. Accordingly, the Examiner's generalization might indicate that employing multiple layers of encryption was known and even that protocol specific encryption was known. However, these conclusions fall far short of establishing a prima facie case of obviousness under 35 USC §103. The Examiner has failed to provide a fact-based rationale why one of ordinary skill would have been motivated to modify specifically *Schneier* or *Helwig et al.* with a second encryption/decryption step and why that skilled artisan would have performed the encryption/decryption as being protocol layer specific.

The lack of a fact-based explanation for expanding the teachings of *Helwig et al.* and *Schneier* undermine the factual determination that *Helwig et al.* and *Schneier* provide a prima facie case of obviousness within the meaning of 35 USC §103 of claims 2, 6, and 14.

F. Claims 2, 3, 4, 6, 7, 8, 14, 15, 16, 18, 19, 22, 23, 26, 27 [and 29], 30, 31, 34 and 35 are not obvious over either *Helwig et al.* or *Schneier* because neither of these references anticipate the respective independent claims from which these claims depend and, thus, the Examiner did not discharge the initial burden of establishing a prima facie basis to deny patentability to the claimed invention under 35 USC §103.

In rejecting the dependent claims, the Examiner relies on either *Helwig et al.* or *Schneier* as applied to the independent claims and then asserts, through "Official Notice" that the specific features in the dependent claims are well-known.

As argued above, neither of the applied references disclose all the features of the independent claims -- features which are incorporated into respective dependent claims. Accordingly, for the reasons presented above, with regard to the independent claims, neither reference discloses or suggests every feature recited in the dependent claims.

Neither *Schneier* nor *Helwig et al.*, therefore, provide the factual basis needed to properly establish a prima facie case of obviousness under 35 USC §103.

CONCLUSION

For the reasons advanced above, the Examiner's factual determination that *Schneier* identically describes the claimed inventions of claims 1, 5, 13, 17, 20, 24, 28 and 32, within the meaning of 35 USC §102, is erroneous. For the reasons advanced above, the Examiner's factual determination that *Helwig et al.* identically describe the claimed inventions of claims 1, 5, 13, 17, 20, 24, 28 and 32, within the meaning of 35 USC §102, is erroneous. Appellants, therefore, respectfully solicit the Honorable Board to reverse each of the Examiner's rejections.

For the reasons advanced above, Appellants submit that the Examiner did not establish a *prima facie* basis to deny patentability to any of the claims on Appeal under 35 USC §103. Appellants, therefore, respectfully solicit the Honorable Board to reverse each of the Examiner's rejections under 35 USC §103.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 50-0417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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APPENDIX

1. (Twice Amended) A method for providing communication protocol layer independent security for data transmitted between a first process, executing on a first network node, and a second process, executing on a second network node, wherein the first network node and the second network node each support at least one common communication protocol layer, the method comprising the steps of:

establishing a communication channel between the first network node and the second network node;

establishing a first stream between the first process and the communication channel;

establishing a second stream between the second process and the communication channel;

in response to the data being written to the first stream, encrypting the data to generate encrypted data, the encrypting of the data being performed independent of any communication protocol layers used to transport the encrypted data from the first network node to the second network node;

causing the encrypted data to be transmitted from the first network node to the second network node according to the at least one communication protocol layer supported by the first and second network nodes; and

in response to the encrypted data being read from the second stream, decrypting the encrypted data to recover decrypted data which is identical to the data on the first network node before the data was written to the first stream, the decrypting of

the encrypted data being performed independent of any communication protocol layers used to transport the encrypted data from the first network node to the second network node.

2. (Thrice Amended) The method of Claim 1, further including the steps of

performing a communication protocol layer specific encryption of the data on the first network node, and

performing a communication protocol layer specific decryption of the data on the second network node.

3. The method of Claim 1, wherein the communication channel is a Java secure channel,

wherein the first stream is a first Java stream,

wherein the second stream is a second Java stream,

wherein the step of establishing a communication channel between the first and second network nodes further comprises the step of establishing a Java secure channel between the first and second network nodes,

wherein the step of establishing a first stream between the first process and the communication channel further comprises the step of establishing a first Java stream between the first process and the Java secure channel, and

wherein the step of establishing a second stream between the second process and the communication channel further comprises the step of establishing a second Java stream between the second process and the Java secure channel.

4. (Twice Amended) The method of Claim 1, wherein the communication channel is a Java secure channel, wherein the first stream is a Java stream,

wherein the second stream is a Java stream,

wherein the method further comprises the step of connecting the Java secure channel to a third Java stream, and

wherein the third Java stream provides for the transmission of data according to a specific communication protocol layer.

5. (Twice Amended) A computer-readable medium carrying one or more sequences of one or more instructions for providing communication protocol layer independent security for data transmitted between a first process, executing on a first network node, and a second process, executing on a second network node, wherein the first network node and the second network node each support at least one common communication protocol layer, the one or more sequences of one or more instructions including instructions which, when executed by one or more processors, cause the one or more processors to perform the steps of:

establishing a communication channel between the first network node and the second network node;

establishing a first stream between the first process and the communication channel;

establishing a second stream between the second process and the communication channel;

in response to the data being written to the first stream, encrypting the data to

generate encrypted data, the encrypting of the data being performed independent of any communication protocol layers used to transport the encrypted data from the first network node to the second network node;

causing the encrypted data to be transmitted from the first network node to the second network node according to the at least one communication protocol layer supported by the first and second network nodes; and

in response to the encrypted data being read from the second stream, decrypting the encrypted data to recover decrypted data which is identical to the data on the first network node before the data was written to the first stream, the decrypting of the encrypted data being performed independent of any communication protocol layers used to transport the encrypted data from the first network node to the second network node.

6. (Twice Amended) The computer-readable medium of Claim 5, wherein the computer-readable medium further includes instructions for performing the steps of

performing a communication protocol layer specific encryption of the data on the first network node, and

performing a communication protocol layer specific decryption of the data on the second network node.

7. The computer-readable medium of Claim 5, wherein the first stream is a first Java stream,

wherein the second stream is a second Java stream,

wherein the step of establishing a communication channel between the first and

second network nodes further comprises the step of establishing a Java secure channel between the first and second network nodes,

wherein the step of establishing a first stream between the first process and the communication channel further comprises the step of establishing a first Java stream between the first process and the Java secure channel, and

wherein the step of establishing a second stream between the second process and the communication channel further comprises the step of establishing a second Java stream between the second process and the Java secure channel.

8. (Amended) The computer-readable medium of Claim 5, wherein the communication channel is a Java secure channel,

wherein the first stream is a Java stream,

wherein the second stream is a Java stream,

wherein the computer-readable medium further includes instructions for connecting the Java secure channel to a third Java stream, and

wherein the third Java stream provides for the transmission of data according to a specific communication protocol layer.

13. (Twice Amended) A computer data signal embodied in a carrier wave and representing sequences of instruction which, when executed by one or more processors, provide communication protocol layer independent security for data transmitted between a first process, executing on a first network node, and a second process, executing on a second network node, according to at least one common communication protocol layer

supported by the first and second network nodes, by performing the steps of:

establishing a communication channel between the first network node and the second network node;

establishing a first stream between the first process and the communication channel;

establishing a second stream between the second process and the communication channel;

in response to the data being written to the first stream, encrypting the data to generate encrypted data, the encrypting of the data being performed independent of any communication protocol layers used to transport the encrypted data from the first network node to the second network node;

causing the encrypted data to be transmitted from the first network node to the second network node according to the at least one communication protocol layer supported by the first and second network nodes; and

in response to the encrypted data being read from the second stream, decrypting the encrypted data to recover decrypted data which is identical to the data on the first network node before the data was written to the first stream, the decrypting of the encrypted data being performed independent of any communication protocol layers used to transport the encrypted data from the first network node to the second network node.

14. (Twice Amended) The computer data signal of Claim 13, wherein the computer sequence of instructions further includes instructions for performing the steps of

performing a communication protocol layer specific encryption of the data on the first network node, and

performing a communication protocol layer specific decryption of the data on the second network node.

15. The computer data signal of Claim 13, wherein the first stream is a first Java stream,

wherein the second stream is a second Java stream,

wherein the step of establishing a communication channel between the first and second network nodes further comprises the step of establishing a Java secure channel between the first and second network nodes,

wherein the step of establishing a first stream between the first process and the communication channel further comprises the step of establishing a first Java stream between the first process and the Java secure channel,

wherein the step of establishing a second stream between the second process and the communication channel further comprises the step of establishing a second Java stream between the second process and the Java secure channel.

16. (Amended) The computer data signal of Claim 13, wherein the communication channel is a Java secure channel,

wherein the first stream is a Java stream,

wherein the second stream is a Java stream,

wherein the computer sequence of instructions further includes instructions for

connecting the Java secure channel to a third Java stream, and

wherein the third Java stream provides for the transmission of data according to a specific communication protocol layer.

17. (Amended) A method for providing communication protocol layer independent security for data transmitted by a process executing on a network node, the method comprising the steps of:

a) establishing a stream between the process and a communication channel; and

b) in response to the data being written to the stream, encrypting the data to generate encrypted data, the encrypting of the data being performed independent of any communication protocol layers used to transport the encrypted data on the communication channel.

18. (Amended) The method of Claim 17, wherein the communication channel is a Java secure channel,

wherein the stream is a first Java stream, and

wherein the step of establishing a stream between the process and the communication channel further comprises the step of establishing a Java stream between the process and the Java secure channel.

19. (Amended) The method of Claim 17, wherein the communication channel is a Java secure channel, wherein the stream is a Java stream,

wherein the method further comprises the step of connecting the Java secure channel to a second Java stream, and

wherein the second Java stream provides for the transmission of data according to a specific communication protocol layer.

20. (Amended) A method for providing communication protocol-independent security for data transmitted between a first node and a second node, the method comprising the steps of:

establishing a communication channel between a first network node and a second network node;

establishing a first stream from a first process to the communication channel after the establishment of the communication channel, wherein the first stream is encrypted after the first process and before entering the communication channel and the encrypted first stream is independent of any communication protocol layers; and

establishing a second stream from the communication channel to a second process after the establishment of the communication channel, wherein the second stream is decrypted after the communication channel and before entering the second process.

22. (Amended) The method of claim 20, wherein:

the first stream is a first Java stream;

the second stream is a second Java stream;

the step of establishing a communication channel between the first network node

and second network node further comprises the step of establishing a Java secure channel between the first network node and second network node;

the step of establishing the first stream comprises the step of establishing the first Java stream after the first process and before the Java secure channel; and

the step of establishing a second stream comprises the step of establishing the second Java stream after the Java secure channel and before the second process.

23. (Amended) The method of claim 20, wherein:

the communication channel is a Java secure channel;

the first stream is a Java stream;

the second stream is a Java stream;

the method further comprises the step of connecting the Java secure channel to a third Java stream; and

the third Java stream provides for the transmission of data according to a specific communication protocol layer.

24. (Amended) A computer-readable medium carrying one or more sequences of one or more instructions for providing communication protocol-layer independent security for data transmitted between a first node and a second node, the one or more sequences of one or more instructions including instructions which, when executed by one or more processors, cause the one or more processors to perform the steps of:

establishing a communication channel between a first network node and a second network node;

establishing a first stream from a first process to the communication channel after the establishment of the communication channel, wherein the first stream is encrypted after the first process and before entering the communication channel and the encrypted first stream is independent of any communication protocol layers; and

establishing a second stream from the communication channel to a second process after the establishment of the communication channel, wherein the second stream is decrypted after the communication channel and before entering the second process.

26. (Amended) The computer-readable medium of claim 24, wherein:

the first stream is a first Java stream;

the second stream is a second Java stream;

the step of establishing a communication channel between the first network node and second network node further comprises the step of establishing a Java secure channel between the first network node and second network node;

the step of establishing the first stream comprises the step of establishing the first Java stream after the first process and before the Java secure channel; and

the step of establishing a second stream comprises the step of establishing the second Java stream after the Java secure channel and before the second process.

27. The method of claim 24, wherein:

the communication channel is a Java secure channel;

the first stream is a Java stream;

the second stream is a Java stream

the method further comprises the step of connecting the Java secure channel to a third Java stream; and

the third Java stream provides for the transmission of data according to a specific communication protocol layer.

28. (Amended) A communications network providing communication protocol-independent security for data transmitted between a first node and a second node, the communication network performing the steps of:

establishing a communication channel between a first network node and a second network node;

establishing a first stream from a first process to the communication channel after the establishment of the communication channel, wherein the first stream is encrypted after the first process and before entering the communication channel and the encrypted first stream is independent of any communication protocol layers; and

establishing a second stream from the communication channel to a second process after the establishment of the communication channel, wherein the second stream is decrypted after the communication channel and before entering the second process.

29. The communication network of claim 28, wherein the encryption of the first stream and the decryption of the second stream is specific to a communication protocol layer.

30. (Amended) The communication network of claim 28, wherein:

the first stream is a first Java stream;

the second stream is a second Java stream;

the step of establishing a communication channel between the first network node and second network node further comprises the step of establishing a Java secure channel between the first network node and second network node;

the step of establishing the first stream comprises the step of establishing the first Java stream after the first process and before the Java secure channel; and

the step of establishing a second stream comprises the step of establishing the second Java stream after the Java secure channel and before the second process.

31. The communication network of claim 28, wherein:

the communication channel is a Java secure channel;

the first stream is a Java stream;

the second stream is a Java stream

the method further comprises the step of connecting the Java secure channel to a third Java stream; and

the third Java stream provides for the transmission of data according to a specific communication protocol layer.

32. (Amended) A computer data signal embodied in a carrier wave and representing sequences of instructions which, when executed by one or more processor, provide communication protocol-independent security for data transmitted between a

first node and a second node, by performing the steps of:

establishing a communication channel between a first network node and a second network node;

establishing a first stream from a first process to the communication channel after the establishment of the communication channel, wherein the first stream is encrypted after the first process and before entering the communication channel and the encrypted first stream is independent of any communication protocol layers; and

establishing a second stream from the communication channel to a second process after the establishment of the communication channel, wherein the second stream is decrypted after the communication channel and before entering the second process.

34. (Amended) The computer data signal of claim 32, wherein:

the first stream is a first Java stream;

the second stream is a second Java stream;

the step of establishing a communication channel between the first network node and second network node further comprises the step of establishing a Java secure channel between the first network node and second network node;

the step of establishing the first stream comprises the step of establishing the first Java stream after the first process and before the Java secure channel; and

the step of establishing a second stream comprises the step of establishing the second Java stream after the Java secure channel and before the second process.

35. The computer data signal of claim 32, wherein:

the communication channel is a Java secure channel;

the first stream is a Java stream;

the second stream is a Java stream

the method further comprises the step of connecting the Java secure channel to a third Java stream; and

the third Java stream provides for the transmission of data according to a specific communication protocol layer.

JAB/DLG

PLEASE STAMP TO ACKNOWLEDGE RECEIPT OF THE FOLLOWING:

In Re Application of: Li GONG
Application No.: 08/883,636 Group Art Unit: 2123
Filed: June 26, 1997 Examiner: D. Meislahn
For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

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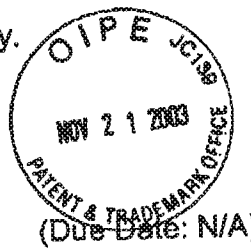
1. Change of Customer Number and correspondence Address; and
2. Revocation of Power of Attorney and Grant of New Power of Attorney.



Dated November 21, 2003
Docket No.: 06502.0515-00000
DLG:jab - J. Bachman, MD 322

(Due Date: N/A)

DLG Fee
11/24/03

PATENT
Customer No. 22,852
Attorney Docket No. 06502.0515-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	
Li GONG	Group Art Unit: 2123
Application No.: 08/883,636	Examiner: D. Meislahn
Filed: June 26, 1997	
For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS	

Commissioner for Patents
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Alexandria, VA 22313-1450

Sir:

CHANGE OF CUSTOMER NUMBER AND CORRESPONDENCE ADDRESS

Effective immediately, please make the following changes concerning all future correspondence with respect to the above-identified patent application:

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Dated: November 21, 2003

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Attorney Docket No. 06502.0515

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Li GONG

Application No.: 08/883,636

Filed: June 26, 1997

For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

Group Art Unit: 2123

Examiner: D. Meislahn

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

REVOCATION OF POWER OF ATTORNEY AND GRANT OF NEW POWER OF ATTORNEY

The undersigned, a representative authorized to sign on behalf of the assignee owning all of the interest in this patent application, hereby revokes all previous powers of attorney or authorization of agent granted in this application before the date of execution hereof. The undersigned verifies that **Sun Microsystems, Inc.** is the assignee of the entire right, title, and interest in the patent application identified above by virtue of an assignment from the inventor recorded in the U.S. Patent and Trademark Office at Reel 8661, Frame 0966. The undersigned certifies that the evidentiary documents have been reviewed and to the best of the undersigned's knowledge and belief, title is in the name of **Sun Microsystems, Inc.** Attached is a photocopy of the Notice of Recordation of Assignment issued by the U.S. Patent and Trademark Office,

PATENT
Customer No. 22,852
Attorney Docket No. 06502.0515

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Li GONG

Application No.: 08/883,636

Filed: June 26, 1997

For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

Group Art Unit: 2123

Examiner: D. Meislahn

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P.O. Box 1450
Alexandria, VA 22313-1450

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together with a photocopy of the recorded Assignment. The undersigned hereby grants its power of attorney to Douglas B. Henderson, Reg. No. 20,291; Ford F. Farabow, Jr., Reg. No. 20,630; Arthur S. Garrett, Reg. No. 20,338; Donald R. Dunner, Reg. No. 19,073; Brian G. Brunsvold, Reg. No. 22,593; Tipton D. Jennings, IV, Reg. No. 20,645; Jerry D. Voight, Reg. No. 23,020; Laurence R. Hefter, Reg. No. 20,827; Kenneth E. Payne, Reg. No. 23,098; Herbert H. Mintz, Reg. No. 26,691; C. Larry O'Rourke, Reg. No. 26,014; Albert J. Santorelli, Reg. No. 22,610; Michael C. Elmer, Reg. No. 25,857; Richard H. Smith, Reg. No. 20,609; Stephen L. Peterson, Reg. No. 26,325; John M. Romary, Reg. No. 26,331; Bruce C. Zotter, Reg. No. 27,680; Dennis P. O'Reilley, Reg. No. 27,932; Allen M. Sokal, Reg. No. 26,695; Robert D. Bajefsky, Reg. No. 25,387; Richard L. Stroup, Reg. No. 28,478; David W. Hill, Reg. No. 28,220; Thomas L. Irving, Reg. No. 28,619; Charles E. Lipsey, Reg. No. 28,165; Thomas W. Winland, Reg. No. 27,605; Basil J. Lewris, Reg. No. 28,818; Martin I. Fuchs, Reg. No. 28,508; E. Robert Yoches, Reg. No. 30,120; Barry W. Graham, Reg. No. 29,924; Susan Haberman Griffen, Reg. No. 30,907; Richard B. Racine, Reg. No. 30,415; Thomas H. Jenkins, Reg. No. 30,857; Robert E. Converse, Jr., Reg. No. 27,432; Clair X. Mullen, Jr., Reg. No. 20,348; Christopher P. Foley, Reg. No. 31,354; Roger D. Taylor, Reg. No. 28,992; John C. Paul, Reg. No. 30,413; David M. Kelly, Reg. No. 30,953; Kenneth J. Meyers, Reg. No. 25,146; Carol P. Einaudi, Reg. No. 32,220; Walter Y. Boyd, Jr., Reg. No. 31,738; Steven M. Anzalone, Reg. No. 32,095; Jean B. Fordis, Reg. No. 32,984; Barbara C. McCurdy, Reg. No. 32,120; James K. Hammond, Reg. No. 31,964; Richard V. Burgujian, Reg. No. 31,744; J. Michael Jakes, Reg. No. 32,824; Thomas W. Banks, Reg. No. 32,719; Christopher P. Isaac, Reg. No. 32,616; Bryan C. Diner, Reg. No.

32,409; M. Paul Barker, Reg. No. 32,013; Andrew Chanho Sonu, Reg. No. 33,457; David S. Forman, Reg. No. 33,694; Vincent P. Kovalick, Reg. No. 32,867; James W. Edmondson, Reg. No. 33,871; Michael R. McGurk, Reg. No. 32,045; Joann M. Neth, Reg. No. 36,363; Gerson S. Panitch, Reg. No. 33,751; Cheri M. Taylor, Reg. No. 33,216; Charles E. Van Horn, Reg. No. 40,266; Linda A. Wadler, Reg. No. 33,218; Jeffrey A. Berkowitz, Reg. No. 36,743; Michael R. Kelly, Reg. No. 33, 921; James B. Monroe, Reg. No. 33,971; Doris Johnson Hines, Reg. No. 34,629; Lori Ann Johnson, Reg. No. 34,498; R. Bruce Bower, Reg. No. 37,099; John Rissman, Reg. No. 33,764; Therese A. Hendricks, Reg. No. 30,389; Leslie I. Bookoff, Reg. No. 38,084; Michele C. Bosch, Reg. No. 40,524; Michael J. Flibbert, Reg. No. 33,234; Scott A. Herbst, Reg. No. 35,189; Leslie A. McDonell, Reg. No. 34,872; Thalia V. Warnement, Reg. No. 39,064; Ronald A. Bleeker, Reg. No. 27,773; Kathleen A. Daley, Reg. No. 36,116; C. Gregory Gramenopoulos, Reg. No. 36,532; Anthony M. Gutowski, Reg. No. 38,742; Lionel M. Lavenue; Reg. No. 46,859; and Christine E. Lehman, Reg. No. 38,535, all of **FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.**, and Marc D. Foodman, Reg. No. 34,110; Anirma R. Gupta, Reg. No. 38,275; Sean P. Lewis, Reg. No. 42,798; Bernice B. Chen, Reg. No. 42,403; Noreen A. Krall, Reg. No. 39,734; Monica D. Ward, Reg. No. 40,696; Elaine K. Lee, Reg. No. 41,936; Paul D. Sorkin, Reg. No. 39,039; Marilyn E. Glaubensklee, Reg. No. 35,521; Andrew C. Chen, Reg. No. 43,544; Arien C. Ferrell, Reg No. 46,696; and Jeffrey L. Myers, Reg. No. 44,252, all of **Sun Microsystems, Inc.**, 4150 Network Circle, Santa Clara, CA 95054.

PATENT
Customer No. 22,852
Attorney Docket No. 06502.0515

Please send all future correspondence concerning this application to **Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.**, 1300 I Street, N.W., Washington, D.C. 20005, Telephone No. (202) 408-4000.

By:

Jeffrey L. Myers
Assistant General Counsel
Sun Microsystems, Inc.

Dated: 11/21/2003

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SEPTEMBER 18, 1997

PTAS

100521308A

LOWE, PRICE, LEBLANC & BECKER
EDWARD A. BECKER
99 CANAL CENTER PLAZA
SUITE 300
ALEXANDRIA, VA 22314

SEP 23 1997

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, NORTH TOWER BUILDING, SUITE 10C35, WASHINGTON, D.C. 20231.

RECORDATION DATE: 06/26/1997

REEL/FRAME: 8661/0966
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:
GONG, LI

DOC DATE: 06/25/1997

ASSIGNEE:
SUN MICROSYSTEMS, INC.
2550 GARCIA AVENUE
MOUNTAIN VIEW, CALIFORNIA 94043

SERIAL NUMBER: 08883636
PATENT NUMBER:

FILING DATE:
ISSUE DATE:

SHAREILL COLES, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

70976 U.S. PTO
06/26/97

08003636

71164 U.S. PTO
08/883636
06/26/97

09-03-1997

100521308

FORM PTO-1595
1-31-92

U.S. Department of Commerce
AID

DOCKET NO.: 3070-004

To the Honorable Commissi ... sed original documents or copy thereto:

1. Name of conveying party(ies):

Li Gong

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

2. Name and address of receiving party(ies):

Name: SUN MICROSYSTEMS, INC.

Internal Address:

Street Address: 2550 Garcia Avenue

City: Mountain View State/Country CA Zip 94043

Additional name(s) & address(es) attached? ☐ Yes ☒ No

3. Nature of conveyance:

☒ Assignment ☐ Merger

☐ Security Agreement ☐ Change of Name

☐ Other

Execution Date: June 25, 1997

MRD 6-26-97

4. Application number(s) or patent number(s):

If the document is being filed together with a new application, the execution date of the application is: June 25, 1997

A. Patent Application No(s).

B. Patent No(s).

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: LOWE, PRICE, LEBLANC & BECKER

Internal Address:

Street Address: 99 Canal Center Plaza, Suite 300

City: Alexandria State: VA ZIP: 22314

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41) $40.00

☐ Enclosed

☒ Authorized to be charged to deposit account

8. Deposit account number:

12-2237

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Edward A. Becker, 37,777 — June 26, 1997

Name and Registration No. of Person Signing — Signature — Date

Total number of pages comprising cover sheet: 1

CMB No. 0851-0011 (exp. 4/94)

06/26/1997 JWASHING 00000075 08883636
01 FC:581 40.00 CH

Express Mail EM445691616US

Attorney Docket No.: 3070-004

ASSIGNMENT

(For Execution Prior To Filing Patent Application)

PATENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, I the undersigned, Li Gong hereby sell, assign, and transfer to Sun Microsystems, Inc. a corporation of Delaware, having a principal place of business at 2550 Garcia Avenue, Mountain View, California 94043-1100 ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all improvements that are disclosed in the application for the United States patent that

XX will be filed concurrently with this assignment, or

_____ was filed on _____, and assigned Serial Number _____,

and is entitled "LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS"

and in and to said application and all divisional, continuing, substitute, renewal, reissue, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all foreign countries on said improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Express mail EM445691616US

Each Inventor: Please also list the date that you signed the accompanying DECLARATION:

Each Inventor: Please Sign and Date Below:

June 25, 1997
Date

Name: Li Gong

June 25, 1997
Date

DUPLICATE

71164 U.S. PTO
08/883636
06/26/97

FORM PTO-1595
1-31-92

RECORDATION FORM COVER SHEET

U.S. Department of

PATENTS ONLY

DOCKET NO.: 3070-004

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereto:

1. Name of conveying party(ies):

Li Gong

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

2. Name and address of receiving party(ies):

Name: SUN MICROSYSTEMS, INC.

Internal Address:

Street Address: 2550 Garcia Avenue

City: Mountain View State/Country CA Zip 94043

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☒ Assignment ☐ Merger

☐ Security Agreement ☐ Change of Name

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Additional numbers attached? ☐ Yes ☒ No

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Name: LOWE, PRICE, LEBLANC & BECKER

Internal Address:

Street Address: 99 Canal Center Plaza, Suite 300

City: Alexandria State: VA ZIP: 22314

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41) $40.00

☐ Enclosed

☒ Authorized to be charged to deposit account

8. Deposit account number:

12-2237

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Edward A. Becker, 37,777 — June 26, 1997

Name and Registration No. of Person Signing — Signature — Date

Total number of pages comprising cover sheet: 1

CMB No. 0651-0011 (exp. 4/94)

Express Mail EM445691616US

JAB | DKS

15

PLEASE STAMP TO ACKNOWLEDGE RECEIPT OF THE FOLLOWING:

In Re Application of: Li GONG

Application No.: 08/883,636 Group Art Unit: 2123

Filed: June 26, 1997 Examiner: D. Meislahn

For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

---

1. Revocation of Power of Attorney and Grant of New Power of Attorney (4 pgs)
2. Change of Customer Number and Correspondence Address (1 pg)

Dated: December 12, 2003

Docket No.: 06502.0515-00000

D.K. Stier/S. Goodlette - Mail Drop ATL

(Due Date: NDD)

Dkld m
12-15-03

PATENT
Customer No. 22,852
Attorney Docket No. 06502.0515

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Li GONG

Application No.: 08/883,636

Filed: June 26, 1997

For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

Group Art Unit: 2123

Examiner: D. Meislahn

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32,409; M. Paul Barker, Reg. No. 32,013; Andrew Chanho Sonu, Reg. No. 33,457; David S. Forman, Reg. No. 33,694; Vincent P. Kovalick, Reg. No. 32,867; James W. Edmondson, Reg. No. 33,871; Michael R. McGurk, Reg. No. 32,045; Joann M. Neth, Reg. No. 36,363; Gerson S. Panitch, Reg. No. 33,751; Cheri M. Taylor, Reg. No. 33,216; Charles E. Van Horn, Reg. No. 40,266; Linda A. Wadler, Reg. No. 33,218; Jeffrey A. Berkowitz, Reg. No. 36,743; Michael R. Kelly, Reg. No. 33, 921; James B. Monroe, Reg. No. 33,971; Doris Johnson Hines, Reg. No. 34,629; Lori Ann Johnson, Reg. No. 34,498; R. Bruce Bower, Reg. No. 37,099; John Rissman, Reg. No. 33,764; Therese A. Hendricks, Reg. No. 30,389; Leslie I. Bookoff, Reg. No. 38,084; Michele C. Bosch, Reg. No. 40,524; Michael J. Flibbert, Reg. No. 33,234; Scott A. Herbst, Reg. No. 35,189; Leslie A. McDonell, Reg. No. 34,872; Thalia V. Warnement, Reg. No. 39,064; Ronald A. Bleeker, Reg. No. 27,773; Kathleen A. Daley, Reg. No. 36,116; C. Gregory Gramenopoulos, Reg. No. 36,532; Anthony M. Gutowski, Reg. No. 38,742; Lionel M. Lavenue; Reg. No. 46,859; and Christine E. Lehman, Reg. No. 38,535, all of **FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.**, and Marc D. Foodman, Reg. No. 34,110; Anirma R. Gupta, Reg. No. 38,275; Sean P. Lewis, Reg. No. 42,798; Bernice B. Chen, Reg. No. 42,403; Noreen A. Krall, Reg. No. 39,734; Monica D. Ward, Reg. No. 40,696; Elaine K. Lee, Reg. No. 41,936; Paul D. Sorkin, Reg. No. 39,039; Marilyn E. Glaubenskiee, Reg. No. 35,521; Andrew C. Chen, Reg. No. 43,544; Arien C. Ferrell, Reg No. 46,696; and Jeffrey L. Myers, Reg. No. 44,252, all of **Sun Microsystems, Inc.**, 4150 Network Circle, Santa Clara, CA 95054.

PATENT
Customer No. 22,852
Attorney Docket No. 06502.0515

Please send all future correspondence concerning this application to **Finnegan, Henderson, Farabow, Garrett & Dunner**, L.L.P., 1300 I Street, N.W., Washington, D.C. 20005, Telephone No. (202) 408-4000.

By:

Jeffrey L. Myers
Assistant General Counsel
Sun Microsystems, Inc.

Dated: 11/24/2003

PATENT
Customer No. 22,852
Attorney Docket No. 06502.0515-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Li GONG

Application No.: 08/883,636

Filed: June 26, 1997

For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

Group Art Unit: 2123

Examiner: D. Meislahn

Commissioner for Patents
PTO Box 1450
Alexandria, VA 22313-1450

Sir:

CHANGE OF CUSTOMER NUMBER AND CORRESPONDENCE ADDRESS

Effective immediately, please make the following changes concerning all future correspondence with respect to the above-identified patent application:

Customer No.	22,852
Attorney Docket No.	06502.0515-00
Address:	FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P. 1300 I Street, N.W. Washington, D.C. 20005-3315
Telephone:	(202) 408-4000
Facsimile	(202)-408-4400

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.

Dated: December 12, 2003

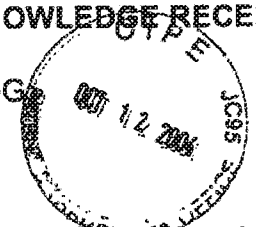
D. Kent Stier
Reg. No. 50,640

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

JC-> - SLO - DLS

PLEASE STAMP TO ACKNOWLEDGE RECEIPT OF THE FOLLOWING:



In Re Application of: Li GONG
Application No.: 08/883,636 Group Art Unit: 2123
Filed: June 26, 1997 Examiner: Douglas Meislahn
For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

---

1. Certificate of Mailing Under 37 C.F.R. § 1.8 (1 pg)
2. Status Inquiry (1 pg)

Dated: October 6, 2004
Docket No.: 06502.0515-00000 (Due Date: NDD)
D.K. Stier/S. Goodlette - Mail Drop ATL

Allegan DC 10 10-26-04

PATENT
Customer No. 22,852
Attorney Docket No. **06502.0515**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	
Li GONG	Group Art Unit: 2123
Application No.: 08/883,636	Examiner: Douglas Meislahn
Filed: June 26, 1997	
For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS	

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Services under 37 C.F.R. § 1.8 on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

on October 6, 2004
Date

Sherleen Goodlette

Attachments:

1. Status Inquiry (1 pg)
2. Post Card to Acknowledge Receipt

PATENT
Customer No. 22,852
Attorney Docket No. 06502.0515

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Li GONG

Application No.: 08/883,636

Filed: June 26, 1997

For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

Group Art Unit: 2123

Examiner: Douglas Meislahn

Confirmation No.: [Text]

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

STATUS INQUIRY

According to our records, we have not received a communication from the Patent Office since the filing of an Appeal Brief on March 25, 2002.

In view of these circumstances, the undersigned attorney respectfully requests that the Office advise him of the status of this application as soon as possible in order to determine whether further action by the applicant is required at this time.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.

Dated: October 6, 2004

By: _____
D. Kent Stier
Reg. No. 50,640
(404) 653-6559

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/883,636	06/26/1997	LI GONG	3070-004	5383

20277 7590 06/08/2005

MCDERMOTT WILL & EMERY LLP
600 13TH STREET, N.W.
WASHINGTON, DC 20005-3096

EXAMINER	
CALLAHAN, PAUL E	

ART UNIT	PAPER NUMBER
2157	

DATE MAILED: 06/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Notice of Abandonment	Application No.	Applicant(s)	
	08/883,636	GONG, LI	
	Examiner	Art Unit	
	Paul Callahan	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

This application is abandoned in view of:

1. ☒ Applicant's failure to timely file a proper reply to the Office letter mailed on 24 September 2001.
   (a) ☐ A reply was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply (including a total extension of time of _____ month(s)) which expired on _____.
   (b) ☐ A proposed reply was received on _____, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection.
   (A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
   (c) ☐ A reply was received on _____ but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
   (d) ☒ No reply has been received.

2. ☐ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
   (a) ☐ The issue fee and publication fee, if applicable, was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
   (b) ☐ The submitted fee of $_____ is insufficient. A balance of $_____ is due.
   The issue fee required by 37 CFR 1.18 is $_____. The publication fee, if required by 37 CFR 1.18(d), is $_____.
   (c) ☐ The issue fee and publication fee, if applicable, has not been received.

3. ☐ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
   (a) ☐ Proposed corrected drawings were received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply.
   (b) ☐ No corrected drawings have been received.

4. ☐ The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.

5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.

6. ☐ The decision by the Board of Patent Appeals and Interference rendered on _____ and because the period for seeking court review of the decision has expired and there are no allowed claims.

7. ☐ The reason(s) below:

Applicants Atty contacted via phone - no reply sent.

Paul Callahan
6-2-05

Andrew Caldwell

ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.

JAB/SRD/NAS

18

PLEASE STAMP TO ACKNOWLEDGE RECEIPT OF THE FOLLOWING:

In Re Application of: LI GONG
Application No.: 08/883,636
Filed: June 26, 1997
For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS

Confirmation No.: Unassigned
Group Art Unit: Unknown
Examiner: Unknown

1. Petition Requesting Withdrawal Of Holding Of Abandonment And Letter Submitting Duplicate Copy Of File Wrapper (2 pages);
2. Complete copy of File Wrapper;
3. Information Disclosure Statement (2 pages);
4. Form PTO/SB/08 (1 page); and
5. Check for $180.00 to cover IDS surcharge.

Dated: November 3, 2006
Docket No.: 06502.0515-00
JAB/NAS/sns - **S. Shipe, Mail Drop 612**

Dkt'd 11.6.06 pm

PATENT
Customer No. 22,852
Attorney Docket No. 06502.0515-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	
Li GONG	Group Art Unit: 2137
Application No.: 08/883,636	Examiner: Unknown
Filed: June 26, 1997	
For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS	Confirmation No.: Unassigned

Mail Stop Petition
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

PETITION REQUESTING WITHDRAWAL OF HOLDING OF ABANDONMENT

AND

LETTER SUBMITTING DUPLICATE COPY OF FILE WRAPPER

Applicant understands that the above-identified application has now become abandoned. The abandonment date of this application is unknown to Applicant, although Examiner Callahan stated in a telephone conference that this application was abandoned in June 2005. The Examiner also stated that the U.S. Patent Office never received Applicant's Appeal Brief filed March 25, 2002 and that the U.S. Patent and Trademark Office cannot locate its file wrapper for the above-identified application.

Applicant previously submitted to the U.S. Patent Office a Request for File Search on November 22, 2004. However, Applicant has not yet received a response to this Request. Applicant therefore assumes that the U.S. Patent Office lost this application and submits herewith a duplicate copy of the file wrapper in its entirety. Because the Appeal Brief filed March 25, 2005, was timely filed, no abandonment in fact has occurred in this application, nor has Applicant received a Notice of Abandonment.

Applicant submits concurrently herewith an Information Disclosure Statement for consideration by the Examiner once an Examiner is assigned to this application.

If there are any other fees due in connection with the filing of this petition, including any fees required for an extension of time under 37 CFR § 1.136, such an extension is requested, and the Commissioner is authorized to charge any related fees to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: November 3, 2006

By: _____
Nathan A. Sloan
Reg. No. 56,249

PATENT
Attorney Docket No. 06502.0515-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	
Li GONG	Group Art Unit: Unknown
Application No.: 08/883,636	Examiner: Unknown
Filed: June 26, 1997	
For: LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS	Confirmation No.: Unassigned

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(d)

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(d), Applicant brings to the attention of the Examiner the documents on the attached listing. This Information Disclosure Statement is being filed after a Final Action and is accompanied by a fee of $180.00 as specified under § 1.17(p). Applicant respectfully requests that the Examiner consider the listed documents and indicate that they were considered by making appropriate notations on the attached form.

The document listed in this Information Disclosure Statement is a communication from the European Patent Office in a counterpart foreign application. This Information Disclosure Statement is not being filed within three months of the mailing date of that communication. However, Applicant understands that the U.S. Patent Office lost the above-referenced application. Applicant submits concurrently herewith a petition to

withdraw holding of abandonment and duplicate file wrapper. In view of the foregoing circumstances, Applicant respectfully requests consideration of this Information Disclosure Statement once an Examiner is assigned to the reconstructed application.

A copy of the listed foreign document is attached. Applicant respectfully requests that the Examiner consider the listed document and indicate that it was considered by making appropriate notations on the attached form.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies the document as prior art against any claims in the application and Applicant determines that the cited document does not constitute "prior art" under United States law, applicant reserves the right to present to the office the relevant facts and law regarding the appropriate status of such document.

Applicant further reserves the right to take appropriate action to establish the patentability of the disclosed invention over the listed document, the document be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: November 3, 2006

By: _____
Nathan A. Sloan
Reg. No. 56,249

IDS Form PTO/SB/08: Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet	1	of	1

Complete If Known	
Application Number	08/883,636
Filing Date	June 26, 1997
First Named Inventor	LI GONG
Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	06502.0515-00

U.S. PATENTS AND PUBLISHED U.S. PATENT APPLICATIONS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] *(if known)*	Issue or Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

Note: Submission of copies of U.S. Patents and published U.S. Patent Applications is not required.

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3] Number[4] Kind Code[5] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Translation[6]

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation[6]
		European Search Report dated June 10, 1999, issued in EU 98304869.5 (4 pages).	

Examiner Signature		Date Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Acknowledgement Receipt

The USPTO has received your submission at **19:37:32** Eastern Time on **16-JUN-2009** .

No fees have been paid for this submission. Please remember to pay any required fees on time to prevent abandonment of your application.

eFiled Application Information

EFS ID	5528978
Application Number	08883636
Confirmation Number	5383
Title	LAYER-INDEPENDENT SECURITY FOR COMMUNICATION CHANNELS
First Named Inventor	LI GONG
Customer Number or Correspondence Address	20277
Filed By	Tarek N. Fahmi
Attorney Docket Number	3070-004
Filing Date	26-JUN-1997
Receipt Date	16-JUN-2009
Application Type	Utility under 35 USC 111 (a)

Application Details

Submitted Files	Page Count	Document Description	File Size	Warnings
30014200-1214_Executed_Rev_and_POA.pdf	3	Power of Attorney	135784 bytes	◆ PASS

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this

Acknowledgement Receipt will establish the international filing date of the application.

If you need help:

- *Call the Patent Electronic Business Center at (866) 217-9197 (toll free) or e-mail EBC@uspto.gov for specific questions about Patent e-Filing.*
- *Send general questions about USPTO programs to the USPTO Contact Center (UCC) .*
- *If you experience technical difficulties or problems with this application, please report them via e-mail to Electronic Business Support or call 1 800-786-9199.*

REVOCATION OF POWER OF ATTORNEY WITH NEW POWER OF ATTORNEY AND CHANGE OF CORRESPONDENCE ADDRESS
I hereby revoke all previous powers of attorney given in the applications identified on the attached spreadsheet.

☑ I hereby appoint the practitioners associated with the customer number: 58328

☑ Please change the correspondence address for the applications listed in the attached spreadsheet to the address associated with Customer Number: 58328

I am the:

☐ Applicant/Inventor

☑ Assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB96)

SIGNATURE of Applicant or Assignee of Record	
Applicant/Assignee:	Sun Microsystems, Inc.
By (Name/Title):	AARON S. BRODSKY / DIRECTOR, PATENT PROSECUTION
Signature:	Aaron S Brodsky
Telephone No.:	303-272-5387
Date:	Oct 21, 2008

STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: Sun Microsystems, Inc.

states that it is:

1. ☑ the assignee of the entire right, title, and interest; or

2. ☐ an assignee of less than the entire right, title and interest
(The extent (by percentage) of its ownership interest is _____ %)

in the patent applications/patents identified in the attached spreadsheet by virtue of either:

A. ☑ An assignment from the inventor(s) of the patent applications/patents identified in the attached spreadsheet . The assignment was recorded in the United States Patent and Trademark Office at the Reel and Frame listed thereon.

OR

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

2. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

3. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Aaron L Brodsky
Signature

Oct 21, 2008
Date

AARON S. BRODSKY
Printed or Typed Name

303-272-5387
Telephone Number

DIRECTOR, PATENT PROSECUTION, SUN MICROSYSTEMS, INC
Title

10/415335	SUN MICROSYSTEMS, INC.	014212	0955
11/201160	SUN MICROSYSTEMS, INC.	010645	0819
10/767345	SUN MICROSYSTEMS, INC.	014946	0368
10/035579	SUN MICROSYSTEMS, INC.	012442	0992
10/787320	SUN MICROSYSTEMS, INC.	015031	0206
10/888019	SUN MICROSYSTEMS, INC.	008249	0161
10/980256	SUN MICROSYSTEMS, INC.	015966	0768
10/415330	SUN MICROSYSTEMS, INC.	014213	0792
10/443011	SUN MICROSYSTEMS, INC.	009985	0957
10/035587	SUN MICROSYSTEMS, INC.	012440	0787
10/408365	SUN MICROSYSTEMS, INC.	010341	0762
11/151645	SUN MICROSYSTEMS, INC.	016830	0264
08/883636	SUN MICROSYSTEMS, INC.	8661	0966
10/787321	SUN MICROSYSTEMS, INC.	015028	0133
10/035584	SUN MICROSYSTEMS, INC.	012440	0979
10/787322	SUN MICROSYSTEMS, INC.	015025	0306
11/394083	SUN MICROSYSTEMS, INC.	012412	0614
11/394081	SUN MICROSYSTEMS, INC.	012438	0393
11/394080	SUN MICROSYSTEMS, INC.	012445	0628
10/285840	SUN MICROSYSTEMS, INC.	013473	0227
11/221680	SUN MICROSYSTEMS, INC.	8065	0074
10/733228	SUN MICROSYSTEMS, INC.	016414	0071
11/081633	SUN MICROSYSTEMS, INC.	016396	0457
11/127210	SUN MICROSYSTEMS, INC.	016564	0440
10/287608	SUN MICROSYSTEMS, INC.	013470	0142
10/138424	SUN MICROSYSTEMS, INC.	009286	0164
09/686628	SUN MICROSYSTEMS, INC.	011207	0416
09/867645	SUN MICROSYSTEMS, INC.	014354	0437
08/865841	SUN MICROSYSTEMS, INC.	8840	0105
10/415328	SUN MICROSYSTEMS, INC.	014212	0953
10/051277	SUN MICROSYSTEMS, INC.	012834	0326
10/035580	SUN MICROSYSTEMS, INC.	012440	0785
10/390895	SUN MICROSYSTEMS, INC.	012155	0948
11/213810	SUN MICROSYSTEMS, INC.	012155	0948
11/151646	SUN MICROSYSTEMS, INC.	016830	0288
09/457914	SUN MICROSYSTEMS, INC.	010665	0011
10/986193	SUN MICROSYSTEMS, INC.	015986	0443
10/758266	SUN MICROSYSTEMS, INC.	014828	0880
11/151665	SUN MICROSYSTEMS, INC.	018032	0200
11/987659	SUN MICROSYSTEMS, INC.	020477	0873

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
08/883,636	06/26/1997	LI GONG	3070-004

CONFIRMATION NO. 5383

58328
SUN MICROSYSTEMS
C/O SONNENSCHEIN NATH & ROSENTHAL LLP
P.O. BOX 061080
WACKER DRIVE STATION, SEARS TOWER
CHICAGO, IL 60606-1080

POA ACCEPTANCE LETTER

Date Mailed: 07/13/2009

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 06/16/2009.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/trwoodson/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
08/883,636	06/26/1997	LI GONG	3070-004

CONFIRMATION NO. 5383

POWER OF ATTORNEY NOTICE

20277
MCDERMOTT WILL & EMERY LLP
600 13TH STREET, N.W.
WASHINGTON, DC 20005-3096

OC00000036894075

Date Mailed: 07/13/2009

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 06/16/2009.

- The Power of Attorney to you in this application has been revoked by the assignee who has intervened as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

/trwoodson/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

PTO/SB/88 (03-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

REQUEST FOR ACCESS TO AN ABANDONED APPLICATION UNDER 37 CFR 1.14

Bring completed form to:
File Information Unit, Suite 3A20
2800 South Randolph Street
Arlington, VA 22206

Telephone: (703) 756-1800

In re Application of

Application Number	Filed
08/883636	

Paper No. #30

I hereby request access under 37 CFR 1.14(a)(1)(iv) to the application file record of the above-identified ABANDONED application, which is not within the file jacket of a pending Continued Prosecution Application (CPA) (37 CFR 1.53(d)) and which is identified in, or to which a benefit is claimed, in the following document (as shown in the attachment):

United States Patent Application Publication No _____, page, _____ line _____,

United States Patent Number 6,138,238, column _____, line, _____

WIPO Pub No. _____, page _____, line _____

Related Information About Access to Applications Maintained in the Image File Wrapper System (IFW) and Access to Pending Applications in General

A member of the public, acting without a power to inspect, cannot order applications maintained in the IFW system through the FIU. If the member of the public is entitled to a copy of the application file, then the file is made available through the Public Patent Application Information Retrieval system (Public PAIR) on the USPTO internet web site (www.uspto.gov). Terminals that allow access to Public PAIR are available in the Public Search Room. The member of the public may also be entitled to obtain a copy of all or part of the application file upon payment of the appropriate fee. Such copies must be purchased through the Office of Public Records upon payment of the appropriate fee (37 CFR 1.19(b)).

For published applications that are still pending, a member of the public may obtain a copy of: the file contents; the pending application as originally filed; or any document in the file of the pending application.

For unpublished applications that are still pending:

(1) If the benefit of the pending application is claimed under 35 U.S.C. 119(e), 120, 121, or 365 in another application that has: (a) issued as a U.S. patent, or (b) published as a statutory invention registration, a U.S. patent application publication, or an international patent application publication in accordance with PCT Article 21(2), a member of the public may obtain a copy of: the file contents; the pending application as originally filed, or any document in the file of the pending application.

(2) If the application is incorporated by reference or otherwise identified in a U.S. patent, a statutory invention registration, a U.S. patent application publication, or an international patent application publication in accordance with PCT Article 21(2), a member of the public may obtain a copy of the pending application as originally filed

Signature

Ingrid Hebvelle

Typed or printed name

Registration Number, if applicable

Telephone Number

RECEIVED
DEC 16 2010
BY:

12-16-10
Date

FOR PTO USE ONLY

Approved by: _____
(initials)

Unit 1614

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Exhibit B

Index of Papers in Exhibit A

	Document	Date
1.	Appeal Brief	03/25/2002 (USPTO Date Stamp)
2.	Change of Customer Number and Address/ Revocation and Grant of POA	11/21/2003 (USPTO Date Stamp)
3.	Change of Customer Number and Address/ Revocation and Grant of POA	12/12/2003 (USPTO Date Stamp)
4.	Status Inquiry	10/12/2004 (USPTO Date Stamp)
5.	Request for File Search	11/22/2004 (USPTO Date Stamp)
6.	Notice of Abandonment	06/08/2005 (USPTO Mail Date)
7.	Petition Requesting Withdrawal of Holding of Abandonment	11/06/2006 (USPTO Mail Date)
8.	Information Disclosure Statement	11/06/2006 (USPTO Mail Date)
9.	Revocation of POA and With New POA	06/16/2009 (USPTO Ackn. Rec.)
10.	Notice of Acceptance of POA	07/13/2009 (USPTO Mail Date)
11.	Notice Regarding Change of POA	07/13/2009 (USPTO Mail Date)
12.	Request for Access to Abandoned Application	12/16/2010 (USPTO Date Stamp)